Newmarket
Final Draft Master Plan

12 July 1994

Prepared for the Newmarket Planning Board
by the Strafford Regional Planning Commission

This document was funded in part by a grant from the Office of State Planning, New Hampshire Coastal Program, as authorized by the National Oceanic and Atmospheric Administration (NOAA), Award Number NA37020277-01

ADOPTION OF MASTER PLAN
NEWMARKET, NEW HAMPSHIRE

The Planning Board of the Town of Newmarket, New Hampshire, in accordance with the provisions of RSA Chapter 36:15 does hereby adopt the Newmarket Master Plan of July 1994, including the findings, recommendations, goals and policies contoaned herein to aid the Planning Board and other Town Boards in the performance of their respective duties for the purpose of guiding and accomplishing the coordinated and harmonious development of the Town of Newmarket, New Hampshire.

_____

Jay Dugal, Chairman
Newmarket Planning Board

Planning Board Members:

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VISION STATEMENT

This Master Plan represents the collective vision Newmarket residents have for their community. Its goals and recommendations are made to ensure that Newmarket moves forward in a way that is consistent with that vision. Throughout the development of this plan, it became apparent that Newmarket has many unique qualities that are important to its residents. These were made evident through discussions at public meetings and through the results of a townwide survey. This Master Plan will serve as a guide for Newmarket to build upon these qualities and take advantage of the opportunities that they present. The following summarize the Newmarket that has been envisioned through this Master Plan:

- A downtown village area with a mixture of uses that enable residents and visitors to shop, congregate, and entertain themselves in town. An improved appearance to the downtown; one that maintains its traditional New England character and pedestrian orientation.

- Newmarket's natural beauty, ecological integrity and recreational areas are preserved and promoted, making it a place where tourists stop and locals want to spend their time. Assets such as the downtown waterfront, Great Bay, Lamprey River and rural areas are utilized to their full potential.

- A Millyard restored to the historic and economic treasure that it is, and redeveloped with mixed uses, in a manner that is integrated with the rest of the community.

- Commercial areas that promote and maintain an expanded tax base and preserve Newmarket's labor force.

- A community that works closely with UNH in the areas of research and development and support for the academic community.

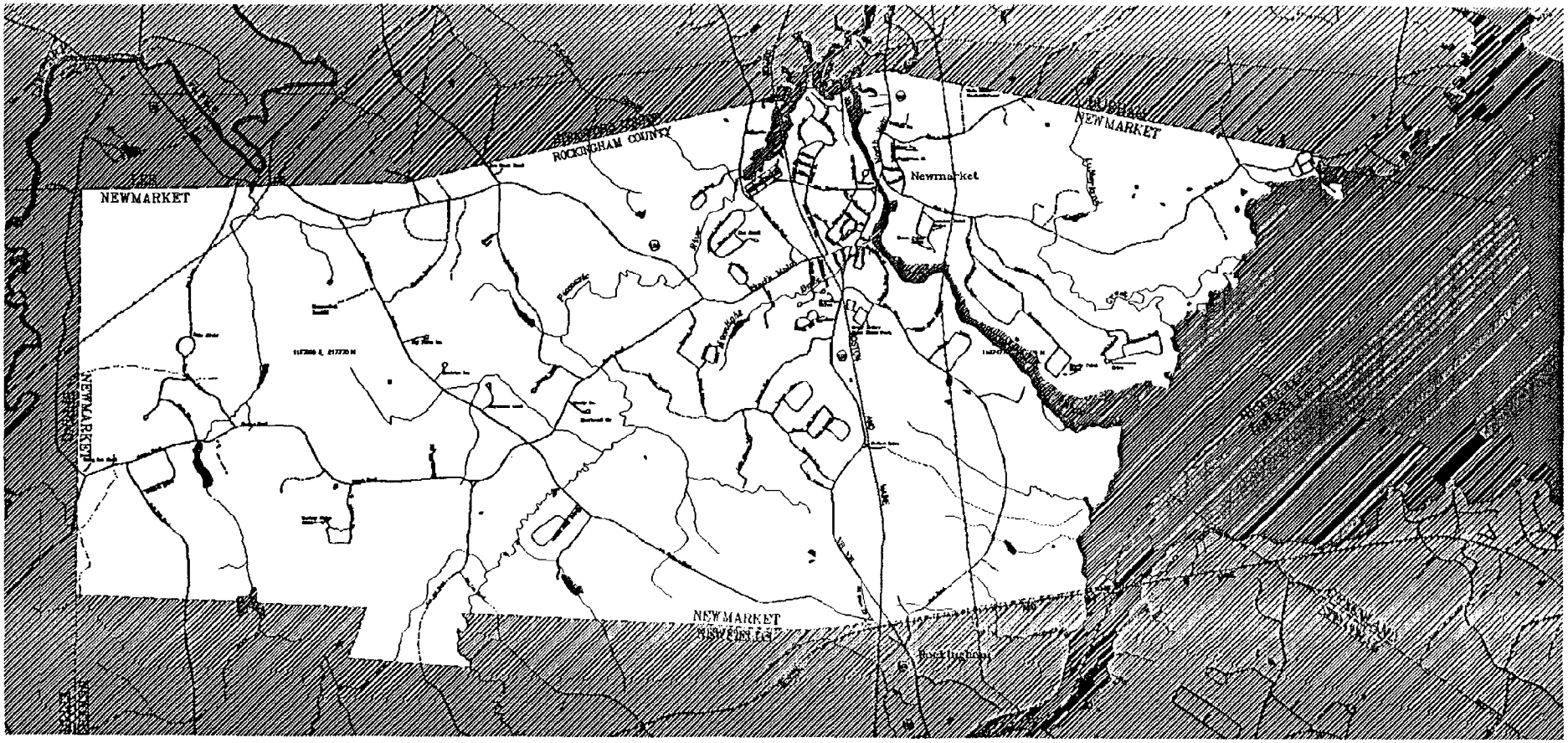
- Strong and open communication between citizens and town government. A government that is responsive to the needs of its residents and to businesses looking to develop and grow new ideas. Substantial coordination with the school

board and strong involvement by Newmarket residents in the many town projects and committees.

- As Newmarket grows, the strong sense of community and friendly "small town" atmosphere is maintained. Community functions, recreational facilities and mix of business and other uses downtown play an important role in this.

- Residential areas which preserve neighborhoods, privacy, and promote a variety of home based opportunities so individuals and families work at home part time or full time.

- Quality development that enhances the aesthetics and long term tax base of the town.



TOWN OF NEWMARKET, NH. 1994

All base features are from USGS 1:24000 scale Digital Line Graphs. All features distributed by Complan Systems, Research Center, Durham, NH.

Map produced at Strafford Regional Planning Commission, 27 May 1994.

- State boundary
- County boundary
- Municipal boundary
- Shoreline or perennial stream
- Intermittent stream
- Other hydrographic feature
- Major highway
- Secondary highway
- Road or street
- Unimproved road
- Trail
- Other road feature
- Pipeline
- Powerline
- Railroad
- Abandoned railroad

Strafford Regional Planning Commission

MILES
0 1/4 1/2 3/4 1.0
SCALE 1:12,000

Representational Map Only - Original 36x48" color version at Town Hall

CHAPTER I Terrestrial Resources

This Chapter updates the material presented in the 1988 Master Plan with information from the 1993 Smart Associates report and data collected by Strafford Regional Planning Commission in the Spring of 1994. This Chapter should be understood to contain general principles. Specific data and inventories may be found in the Natural Resources Inventory prepared by Smart Associates and in state and regional databases.

In 1991, Smart Associates, Environmental Consultants Inc., was retained by the Town of Newmarket to prepare a Natural Resource Inventory and prepare a Conservation Plan. The consultant developed the plan by:

- identifying areas which contain important natural resources
- performing an evaluation of the unique characteristics of local natural resources
- identifying existing or potential sources of groundwater and/or surface contamination
- prioritizing lands for protection
- providing specific acquisition/resource management guidelines for each identified area.

In this plan, six areas in town were identified as critical areas to protect. The criteria used to choose these protection areas included:

- Diversity of wildlife habitat type and protection of threatened or endangered species
- Acreage of wetlands
- Aquifer protection
- Potential for the protection of shorelines and quality of surface water bodies
- Access to and recreational use of the area
- Historical and archeological significance of the area
- Proximity to protected lands
- Unique geological features
- Local development pressures
- Acreage of prime farm land
- Importance to community/regional/resource system
- Potential for intermunicipal coordination
- Plant/vegetative resources

The sites selected for protection include the South Bay Area, the North Bay Area, the Upper Narrows, the Folletts Brook/ Newmarket Plains Area, the Tuttle Swamp Area, and the Old Neal Mill Road Area. The report, commonly referred to as the "Smart Study" serves as a long-term resource management plan for Newmarket. The resulting set of resource maps, public input and data collected should be considered as additional technical background for the basic principles and information set

forth in this chapter. Additional maps were prepared for this chapter by Strafford Regional Planning in the Spring of 1994. Full size color copies are on display in the Planning and Public Works office. Reduced versions are included for reference.

Elevation

Newmarket's elevation ranges from sea level on the eastern banks of Great Bay to 281 feet at the top of Bald Hill in the extreme south-west corner of the town. Generally, the majority of town land is very low, lying less than 120 feet above sea level. This is especially the case of the plains east of Route 108.

The most densely populated area, the town center along Route 108, has maximum elevations of only 60 to 100 feet while being bisected by the Lamprey River. A large area of the town falls in this river basin creating potential flood hazards and drainage problems. Other notable low-lying areas include the swamplands in the western and southwestern portions of the town. Existing at levels of 60 to 100 feet above sea level, these open marshes and wooded marshes are quite extensive and encompass many small streams such as the Piscassic. Most notable of the marshy area is Tuttle Swamp in the western part of town at an elevation ranging from 80 to 100 feet above sea level.

High points in the town occur on several scattered hills: Grapevine Hill at 231 feet, Great Hill at 228 feet and Bald Hill at 281 feet. The highest extensive plain is the north central Newmarket plain at 100 to 140 feet above sea level.

Slope

An examination of the Newmarket slope map shows that the town's terrain is relatively flat. The majority of the land area has a slope of 8 percent or less, reflective of the wetland flats on the southern coast and western inland sections. Steeper slope areas, which coincide with several hills and riverbank areas, cut through the town center and several densely populated areas. The major population centers along Route 108 and Newmarket Road parallel moderate to steeply sloped areas with grades of 8 to 25 percent.

Extreme slope areas with grades of greater than 25 percent are present on the immediate southern shoreline of the Lamprey River through the center district of the town and at Bald, Grapevine and Great Hills. These areas present added costs and complications for development and are resource fragile. Development limitation in these areas is essential.

The primary reason for controlling development on steep slopes is to reduce the potential for increased rates of runoff. As construction takes place on steeper slopes, vegetation is cleared and more land is exposed to direct rainfall. Substantial increases occur in over-land flow when the course of runoff is

unaltered and rainwater is no longer deflected and absorbed by vegetation. In addition, there may be a substantial increase in erosion when vegetation no longer holds the soils in place and rainfall penetrates the surface directly, loosening up the top soil layer.

The steepness of terrain is easily calculated by determining the ratio of vertical change to horizontal change (often referred to as "rise over run"). The importance of identifying Newmarket's slopes are that they often are associated with thin, poorly drained soils that can cause a number of problems for development including inadequate water supply, treatment of sewage, and erosion.

The Newmarket Slope Map (scale: 1:12000), on file in the Planning Board Office, was prepared in 1979 by SRPC using the Geological Survey Map as a base. Slopes are mapped according to the degree of steepness and were placed into five categories to coincide with those categories used by the U.S. Soil Conservation Service. The five categories, with their general suitability, (excluding soil conditions) are:

Group 1: 0-3 percent - These slopes have the least restrictions, and consequently, the highest capability for development. Flat lands are suitable for all types of development including large industrial and commercial buildings, roads, highways and active recreational uses such as playing fields. However, very flat land can pose development problems that may include inadequate drainage (especially during peak storm events), inadequate drainage for sewage effluent, and monotonous views.

Group 2: 3-8 percent - These gently-sloped areas are suitable for single family housing on small and medium lots, apartment buildings and secondary roads. Most of the land uses under Group 1 are also suitable on these slopes but limitations increase at the upper extreme of the category.

Group 3: 8-15 percent - Land in this category is moderately suited for development and has certain restrictions. Development costs and the potential for runoff and erosion begin to increase in this slope range. These areas are suitable for single family housing on large lots as well as townhouse and garden apartments.

Group 4: 15-25 percent - These areas generally have significant restrictions and a poor capability to support development. The substantial cost of site development becomes a major factor. Residential uses can be compatible if properly planned out. Townhouses with multi-level extremes, using cluster techniques, can be considered in these areas. Due to the excess amount of surface runoff created on these slopes, runoff and erosion control measures, larger minimum lot size requirements, appropriate sewage disposal techniques and special care in construction and landscaping may be required.

Group 5: 25 percent and over - Slopes greater than 25 percent are considered critical resources and almost all types of development should be prevented. Development costs and potential environmental impacts in this group are high. Such factors as shallow to bedrock soil conditions, poor drainage and high runoff and erosion rates are common problems in this group and may severely limit construction on these slopes. Areas in Newmarket with these slopes are best suited for wildlife habitat and passive recreational uses.

These categories, are one measure of suitability of development. Further detail can be obtained from the Rockingham County Office of the Soil Conservation Service or from the Strafford Regional Planning Commission.

Soils

There are a total of 39 soil types of varying slopes, which accounts for 54 different soil classifications. present in the town of Newmarket according to Soil Conservation Service data published in 1986. Soil classifications are grouped together by common features and constraints of soil types. The term "classifications" merely takes into account the added dimension of soil type and slope present in an area.

Newmarket's soil classification groupings are based upon the standard numerical system used in Rockingham County to describe drainage capability. In Newmarket, soil classifications break down as follows: six classifications are described as excessively well drained, two as somewhat excessively well drained, 14 as well drained, 11 as moderately well drained, six as poorly drained and 15 as very poorly drained.

Soil Suitability for Different Land Uses

This section, and accompanying soil maps (located at the Town Hall), are intended to serve as a general outline of soil classifications, locations and resource development potential for the Town of Newmarket. They were prepared from pre-existing soil surveys conducted by the Soil Conservation Service for the US Department of Agriculture and soil potential inventories published for Rockingham County and the New Hampshire seacoast area. These two publications, Soils Potentials for Development in the New Hampshire Seacoast Area and Soils and Their Interpretations for Various Land Uses, and their subsequent analysis serve as a valuable guide for planning Newmarket's future land uses.

As a summary of the detailed information in these publications, **Table I.1** lists development potential ratings for soils in Newmarket including septic systems, roadways, dwellings, recreational areas, woodlands and sand and gravel pits. These ratings are interpretations based upon conditions in the

NMKMPcom.wk1

05/03/94

Newmarket Master Plan Committee

Name	Address	Phone/fax	Board/Affiliation
Jay Dugal	63 Ash Swamp Rd	659-3061	Planning Board
Kelly Malasky	310 Ash Swamp Rd		Planning Board
Robert Fillion	67 Elm Street		Planning Board
Laurence Beauchesne	72 Main Street		Planning Board
Gerry Hamel	84 Dame Rd		Planning Board
Vickie Bloom	145 Hersey Lane		Planning Board
John Ahlgren	50 Smith Garrison	749-1000/427-0005	Planning Board/Council
Gregory MacIntosh	28 Elm Street		Planning Board
Randall Schroeder	7 Maplecrest Drive	659-5377/862-2311	UNH/Community
Chris Schoppmeyer	15 Riverbend Road		Env./Community
Frank Edmunds	Town Hall		Town Manager
Priscilla Shaw	15 Ham St 03857		regional/Council
Preston Samuel	1 Bass St		Planning Board
Sharon DeGiovanni	15 Smith Garrison	659-5018	Community
Margaret Watkins	NH Fish & Game 225 Main St DUR	868-1095	Lamprey River
Janice Rosa	340 Wadleigh Falls Rd		School Board
Charles Saurman	46 Schanda Drive	659-7593 or 772-6084	Community
Michael & Andrea Ricker	PO Box 551, Stratham 03885	659-7831 or 436-6636	Community

Meeting/Mailing Schedule:

	12 May 1994	Mailing of 17 May materials
Stephen Pesci	24 May 1994 7:00PM	*Transportation, Future Land Use, Introduction*
	14 June 1994 7:00PM	Final Committee Mtg – Action Items to Council
	28 June 1994 7:00PM	Final Document Presented to Planning Board

PRESS: ** Saturday Public Gathering 18 June 1994

Transcript	Dan Lane	742-3735 fax: 742-6442	PO Box 519, Dover 03820
Fosters	Denise Breidegam	778-8585 fax: 778-1108	35 High St, Exeter 03833
Portsmouth Herald	Liane Evans	436-1800 fax: 427-0550	PO Box 119, Portsmouth 03802
Exeter Newsletter	Dan Hackett or Daphine Sterling	772-6000 fax: 772-3830	PO Box 250, Exeter 03833
Continental Cablevision		800-654-7800fx431-0083	155 Commerse Way, Ports 03801

Strafford Regional Planning Commission

SRPC

259 County Farm Road, Unit 1
Dover, New Hampshire 03820-6015

(603) 742-2523
FAX (603) 743-3667

MEMORANDUM

To: **Newmarket Master Plan Committee**
From: **Stephen Pesci** SPesci
RE: **Master Plan Update Schedule for 1994**
Date: **5 January 1994**

Enclosed please find a copy of our tentative schedule for 1994. You will notice that we **will not meet this Tuesday, 11 January 1994.** Our next meeting will be on the second Tuesday in February at 7:00 PM in the Town Hall.

Before that meeting you will receive draft copies of the final survey analysis, Natural Resources and Capital Facilities Chapters. Please review them and have your comments ready for the February meeting.

I have also enclosed a copy of summarized final survey results. As I discussed at the meeting on 28 December, the survey was a great success and has given us lots of valuable insight.

If you have any questions, please give me a call. I look forward to seeing you at the February meeting.

enc. schedule
Survey Summary

VISION STATEMENT

This master plan represents the collective vision Newmarket residents have for their community. Its goals and recommendations are made to ensure that Newmarket moves forward in a way that is consistent with that vision. Throughout the development of this plan, it became apparent that Newmarket has many unique qualities that are important to its residents. These were made evident through discussions at public meetings and through the results of a townwide survey. This master plan will serve as a guide for Newmarket to build upon these qualities and take advantage of the opportunities that they present. The following summarize the Newmarket that has been envisioned through this master plan:

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- Quality development that enhances the aesthetics and long term tax base of the town.

What is the Master Plan?

The master plan sets the foundation for the future development of Newmarket. It articulates the vision Newmarket residents have for their community and establishes recommendations to ensure this vision is obtained. It is the document the planning board will use as a guide when developing land use regulations such as zoning, site plan and subdivision.

How is the Master Plan developed?

Under New Hampshire statute, it is the responsibility of the planning board to prepare and update the master plan. The process for Newmarket's 1994 master plan update began in September of 1993. The Strafford Regional Planning Commission was hired by the town to work with the Newmarket planning board to develop the master plan. A committee consisting of planning board members and other groups in Newmarket was formed to oversee preparation of the document. Strong effort was made to ensure this committee represented the many interests in Newmarket. It includes school board members, town council, residents affiliated with UNH, Conservation Commission members, and economic development committee members. This committee has been meeting on a regular basis since September. These meetings have been open to the public, which has attended and provided input. The master plan is scheduled to be completed by mid July. All recommendations are still in draft form.

What does the Master Plan consist of?

The master plan focuses on issues such as natural resources, land use, housing, population, transportation, historical resources, community infrastructure and facilities. There is a chapter on each of these that describes the current situation and past trends. Outstanding issues in relation to the information presented in the sections are addressed. An integral part of the master plan is a community survey that was conducted in December of 1993. Over 200 Newmarket residents gave their input on issues such as what type of development they would like to see, what it is about Newmarket they would like to preserve, what they would like to change, and what issues they felt should be addressed in the master plan. The Master Plan Update Committee has used the results of this survey as a basis in developing many of their recommendations. The master plan includes a vision statement which summarizes the broad goals this committee hopes to achieve. It also includes an implementation section which makes specific recommendations as to how the planning board, town council and other groups can coordinate and act to ensure these goal are met.

Please review the draft chapters and the Vision Statement and feel free to give us your comments!

Strafford Regional Planning Commission SRPC

259 County Farm Road, Unit 1
Dover, New Hampshire 03820-6019

(603) 742-2523
FAX (603) 743-3667

MEMORANDUM

TO: Newmarket Master Plan Committee

FROM: Stephen T. Pesci, Senior Planner

RE: Master Plan Committee Meeting

DATE: 31 January 1994

Due to delays in receiving Community Facility (CIP) information departments, I have decided to delay the 8 February meeting.

We will meet on the second Tuesday in March - 8 March 1994 - at 7:00 PM in the Council Chambers.

In order to keep our contract on schedule we will present all of the following draft Chapters:

- Community Survey
- Community Facilities
- Natural Resources
- Transportation
- Partial work on Future Land Use and Water Resources
- Base Map

If you have any questions or concerns, please call.

OFFICE OF THE
PLANNING BOARD

INCORPORATED
DECEMBER 15. 1727
CHARTER JANUARY 1. 1991

3 June 1994

RICHARD WILSON
204 NEW ROAD
NEWMARKET, NH 03857

Dear RICHARD,

I am writing to invite you to an informal presentation and discussion of the **Newmarket Master Plan** to be held on Saturday, 18 June 1994 at the Town Fishing Derby. The Master Plan Committee and the Planning Board are actively seeking input to develop a vision and long term goals for the Town. This meeting will facilitate dialog between officials in the Town.

This invitation is being extended to all members of the Town Council, School Board, Economic Development Committee, Conservation Committee and Planning Board. The Master Plan Committee has been working with Strafford Regional Planning Commission since last Fall. This gathering will allow the presentation of our ideas in an open and constructive environment.

Julie Cornelio and myself will make a brief presentation on the draft plan and facilitate discussion. It is hoped that all present can reach consensus on the general goals presented in the Plan and add input for the final document which will be completed in June. Summaries of the Plan will be available at the derby. Full drafts are available from my office.

The Fishing Derby is sponsored by the Newmarket Recreation Department which has been kind enough to allow us to tag along. The derby begins at 8:00 AM and is held at Herb Richmond's Pond. I expect our discussion will begin around 10:00 AM. I hope you will take this opportunity to join in. If you have questions about the Master Plan, call me at my office in Dover **742-2523**. The Recreation Department (659- 5563) can answer your questions regarding fishing and location! NO RSVP required...see you there on the 18th!

Sincerely,

Stephen Pesci, Town Planning Consultant

PS: If it rains, we will meet at the Council Chamber on Tuesday Night, 21 June at 7:00 pm.

TOWN HALL
186 MAIN STREET, NEWMARKET, NEW HAMPSHIRE 03857
TELEPHONE (603) 659-3617

Strafford Regional Planning Commission

SRPC

259 County Farm Road, Unit 1
Dover, New Hampshire 03820-6019

(603) 742-2523
FAX (603) 743-3667

TO: Newmarket Master Plan Update Committee
FROM: Julie Cornelio
RE: Master Plan Update Workshop
DATE: April 12, 1994

This is a reminder of the **April 26th Master Plan Workshop**, at 7:00 pm in Town Council Chambers. This is the meeting that you should bring in your ideas on your "vision" for Newmarket's future. We will not be presenting any chapters. The meeting will be focused solely on the development of Master Plan goals.

The **van ride** around Newmarket that we discussed at the last workshop is scheduled on **April 26th** also. Departure time is **5:30 pm** from Town Hall. Please plan on participating!

Newmarket Master Plan
goes to the Fishing Derby!

The Town Master Plan Committee will be present at the Fishing Derby on June 18 to present their work thus far and get input from residents in Attendance. Copies of the draft long range plan for the town will be presented and a roundtable discussion on future visions of the town will be facilitated.

The new Town Council, Planning Board and members of the Economic Development Committee will be present to listen to your comments and discuss their plans for the upcoming years. After you fish... join us as we talk about your town. Discussions to start at around 11:00 AM! If you want to find out more give a call to Steve Pesci at Strafford Regional Planning Commission 742-2523.

Gabrielle —

Here's the info for the Newsletter. I will be formulating invitations soon.

Steve P. THANKS

PS. Forward New Council Members Names & Addresses & tel when you get a chance

Strafford Regional Planning Commission **SRPC**

259 County Farm Road, Unit 1
Dover, New Hampshire 03820-6019

(603) 742-2523
FAX (603) 743-3667

To: Newmarket Master Plan Committee
From: Stephen Pesci
RE: Meeting Delay Notice
Date: 2 March 1994

Due to continued delays in obtaining CIP information, the 8 March 1994 Master Plan Committee meeting has been canceled.

The next meeting of the Master Plan Committee is now scheduled for:

Tuesday, March 29 at 7:00 PM
Town Council Chambers

I apologize for the continued rescheduling of this meeting. Be assured that work on the project continues and completion of the Master Plan will occur before the end of June.

Strafford Regional Planning Commission

SRPC

259 County Farm Road, Unit 1
Dover, New Hampshire 03820-6019

(603) 742-2523
FAX (603) 743-3667

To: **Newmarket Master Plan Committee**
From: **Stephen Pesci**
RE: **29 March Master Plan Committee Meeting**
Date: **23 March 1994**

Enclosed please find drafts of the following chapters:

- Community Facilities Chapter
- Terrestrial Resources Chapter
- Appendix A: Community Survey
- Water Resources Chapter

The chapters contain the 1988 Master Plan Goals and Objectives for your review. **If you only have time to review a few pages, please focus on ideas for revision of these goals and objectives.** The board may wish to simplify the goals and adopt a Critical Issues/Objectives approach with bullet items.

I have also included a draft of new goals and objectives for the Transportation Chapter. This chapter will feature many changes due to completed local projects and changes in the local and regional planning process.

Our meeting is scheduled for **Tuesday, 29 March at 7:00 PM** in the Council Chambers. We will have a very brief Planning Board meeting before discussion the Master Plan.

If you have any questions, please give me a call. I look forward to seeing you at the ~~February~~ meeting.

enclosures

Strafford Regional Planning Commission

259 County Farm Road, Unit 1
Dover, New Hampshire 03820-6019

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 1
To Evelyn Abbott	From Steve Pesci
Co. NMKT Planning	Co. SRPC
Dept.	Phone #
Fax # 659-8508	Fax # 743-3667

Evelyn -
→ This went out today.
→ Please fax me the minutes from this weeks mtg when they are done.
Thanks -
Steve

To: Newmarket Master Plan Committee
From: Stephen Pesci
RE: Final Master Plan Meeting Schedule
Date: 19 May 1994

The final schedule for the Master Plan is as follows:

Tuesday - 24 May 1994	Meeting Canceled
Tuesday - 14 June 1994 - 7pm	Final Meeting of the Master Plan Committee
Saturday - 18 June 1994 - 11am	Roundtable Discussion and Information Table at the Fishing Derby. You will receive an invitation letter in the mail.

Tuesday - 28 June or 12 July 1994 - 7pm Planning Board Meeting
Presentation of Final Document to Planning Board and Formal Public Hearing. Final Document delivered to Planning Board by 15 July.

You will note that we are approaching the end of this project. This is my final request for members to submit ideas for the opening "vision" statement, chapter goals, and closing agreement with the Council. I will be mailing out the remaining draft chapters in advance of the 14 June meeting. Julie and I are still waiting for material from various departments.

I hope you will plan to attend the fishing derby on the 18th. All members of the new Council, Economic Development Committee and School Board will be invited to attend. At that point we can finalize long-term goals and discuss the Master Plan as a whole. We will be distributing summaries of the document at the fishing derby.

If you have suggestions, or would like to help out on the 18th of June please give me a call. In the meantime, I look forward to your final input and completion of this project.

OFFICE OF THE
PLANNING BOARD

INCORPORATED
DECEMBER 15, 1727
CHARTER JANUARY 1, 1991

LEGAL NOTICE

TOWN OF NEWMARKET

PLANNING BOARD

TUESDAY, JULY 12, 1994

7:00 P.M.

NEWMARKET TOWN HALL - COUNCIL CHAMBERS

There will be a Public Hearing on the Newmarket Master Plan Draft. Public input would be appreciated.

Copies of the proposed Master Plan will be available at the offices of the Strafford Regional Planning Commission and at the Newmarket Town Hall after July 8, 1994.

TOWN HALL
186 MAIN STREET, NEWMARKET, NEW HAMPSHIRE 03857
TELEPHONE (603) 659-3617

Newmarket Historical Society
C/Q David M. LeGault
11 North Main Street
Newmarket, N.H.
03857-1209

Julie Cornelio
Strafford Regional Planning Commission
259 County Farm Road, Unit 1
Dover, N.H. 03820-6019

June 26, 1994

7-1-94

Dear Julie,

Thank you for including the Newmarket Historical Society in the Newmarket Master Plan update. We have reviewed the Historic Resources section of the 1988 Plan and gave you an update of buildings that are no longer standing. Rather than simply deleting historic structures from the list, we would prefer to see another section started listing all historic structures no longer standing. This would help identify historic sites for future generations.

Recommendations from the master plan include the establishment of a local historic district as well as a Historic Commission. At this time there is little support for a Historic Commission due largely to the restrictive tendencies these commissions may have over personal property rights. We would rather see town government foster the appropriate appreciation for historic preservation. Town boards and regulators should have a directive in the form of a mission statement to preserve and promote the historical character of Newmarket, without the need for more bureaucracy in the form of a Historic Commission. Recent examples of change while maintaining historic significance include the Town Library, and the Newmarket Getty Station. One public, one private, both expanded and renovated using modern materials and practices while preserving and maintaining the historical character of their respective buildings. Both parties serve as an example of sensitivity to the historic character of their buildings and the neighborhood in which they reside, and should be commended for their efforts.

The preservation and maintenance of private graveyards through a trust fund should be included in the town's plans. Interest from the trust fund would be used to provide the funding for whatever maintenance would be required from the town.

The Historical Society has recently discussed initiating a town wide program to mark historic structures with their date of construction. The program is in it's early stages but we expect to proceed with it, perhaps in conjunction with the trades program at the High School. Marking the age of historic structures is important to bring about a heightened awareness of the character of Newmarket.

Sincerely,

David M LeGault

David M. LeGault, President Newmarket Historical Society.

TABLE 1 - 1

NEWMARKET SOIL CLASSIFICATIONS

			DEVELOPMENT POTENTIAL RATING *					AGRICULTURAL CLASS **			OTHER USE POTENTIALS				OPTIMAL USE
DRAINAGE CLASSIFICATION	SOIL NUMBER	SOIL NAME	SLOPE	SEPTIC	DWELLINGS	ROADWAYS	TOTAL DEVELOPMENT	SOIL NUMBER	Prime	State Importance	Row Crops (Corn Silage)	Recreational Development	Woodland Suitibility	Sand/Gravel Extraction	Optimal Use(s)
Excessive:	12A	Hinckley	0-3%	Medium	Very High	Very High	High	12A			Medium	High	Very High	both	Woodland
	12B	Hinckley	3-8%	Medium	Very High	Very High	High	12B			Medium	High	Very High	both	Woodland
	12C	Hinckley	8-15%	Medium	High	High	Medium	12C			Low	Medium	Very High		Woodland
	26A	Windsor	0-3%	High	Very High	Very High	Very High	26A			Medium	High	High	sand	All
	26B	Windsor	3-8%	High	Very High	Very High	Very High	26B			Medium	Medium	High	sand	All
	26C	Windsor	8-15%	Medium	High	High	High	26C			Low	Low	High	sand	Woodland
Somewhat Excessive:	510B	Hoosic	3-8%	Medium	Very High	Very High	High	510B		YES	High	High	Very High		Farmland-All
	510C	Hoosic	8-15%	Medium	High	High	Medium	510C		YES	Medium	High	Very High		Farmland-All
Well:	40B	Chatf.-Hollis-Canton	3-8%	Medium	Low	Medium	Medium	40B			Medium	Medium	Very High		Open Space-Woodla
	42B	Canton	3-8%	Very High	Very High	Very High	Very High	42B		YES	High	Low	Very High		Farmland/All
	42C	Canton	8-15%	High	High	High	High	42C		YES	Medium	Low	Very High		Farmland/All
	43C	Canton, Stony	8-15%	High	Medium	High	High	43C			Low	Medium	Very High		Woodland
	44B	Montauk	3-8%	Medium	High	Very High	High	44B	YES		High	Medium	Very High		Farmland
	45C	Montauk, STV	8-15%	Medium	Medium	High	Medium	45C			Very Low	Medium	Very High		Woodland
	66B	Paxton	3-8%	Medium	High	Very High	Medium	66B	YES		Low	Medium	Very High		Farmland
	66C	Paxton	8-15%	Medium	Medium	High	Medium	66C		YES	Low	Low	Very High		Farmland
	67D	Paxton, STV	15-25%	Low	Low	Low	Low	67D			Low	Low	High		Woodland
	67E	Paxton, STV	25-35%	Very Low	Very Low	Very Low	Very Low	67E			Low	Very Low	High		Woodland
	140B	Chatf.-Holl.-Can.	3-8%	Medium	Low	Medium	Medium	140B			Low	Medium	High		All
	140C	Chatf.-Holl.-Can.	8-15%	Low	Low	Medium	Low	140C			Low	Medium	High		All
	140D	Chatf.-Holl.-Can.	15-35%	Very Low	Very Low	Low	Very Low	140D			Low	Medium	High		Woodland
	460C	Pennichuck	8-15%	Low	Low	Medium	Medium	460C			Medium	High	Very High		All
Moderately Well:	29B	Woodbridge	3-8%	Medium	High	Very High	Medium	29B	YES		High	Medium	High		Farmland-All
	32B	Boxford	3-8%	Low	High	High	Medium	32B		YES	High	High	High		Farmland
	32C	Boxford	8-15%	Low	Medium	Medium	Medium	32C			Medium	High	High		Woodland
	38A	Eldridge	0-3%	Medium	High	Very High	Medium	38A	YES		High	High	Very High		Farmland
	38B	Eldridge	3-8%	Medium	High	Very High	Medium	38B	YES		High	High	High		Farmland
	129B	Woodbridge, STV	3-8%	Medium	High	High	Medium	129B			Low	Medium	Very High		All
	129C	Woodbridge, STV	8-15%	Low	Medium	Medium	Medium	129c			Low	Low	High		Woodland
	313A	Deerfield	0-3%	Medium	High	Very High	Medium	313A			Low	Medium	Very High		All
	313B	Deerfield	3-8%	Medium	High	Very High	Medium	313B			Medium	Medium	Very High		All
	447B	Scituate-Newfields	3-8%	Medium	High	High	Medium	447B			Low	Medium	High		Woodland
	531A	Scio	0-3%	Medium	High	Very High	Medium	531A			High	Medium	High		All
Poor:	33A	Scitico	0-3%	Very Low	Medium	Very Low	Very Low	33A			Low	High	High		Open Space/Woodlan
	305	Lim-Pootatuck	---	Very Low	Low	Very Low	Very Low	305			Medium	Very Low	Medium		Wetlands
	314A	Pipestone	0-3%	Very Low	Very Low	Medium	Very Low	314A			Medium	Very Low	High		Wetlands
	538A	Squamscott	0-3%	Very Low	Very Low	Medium	Very Low	538A			High	Low	High		Wetlands
	547A	Walpole, STV	0-5%	Very Low	Very Low	Medium	Very Low	547A			Very Low	Very Low	Medium	both	Wetlands/Woodlands
	547B	Walpole, STV	3-8%	Very Low	Very Low	Medium	Very Low	547B			Very Low	Very Low	Medium	both	Wetlands/Woodlands
Very Poor:	97	Greenwood/Ossipee	---	Very Low	Very Low	Very Low	Very Low	97			Low	Low	Low		Wetlands/Preservat
	115	Scarboro muck	---	Very Low	Very Low	Very Low	Very Low	115			Low	Low	Low		Wetlands
	125	Scarboro, STV	---	Medium	High	High	Medium	125			Low	Low	Low	sand	Wetlands
	134	Maybid	---	Very Low	Very Low	Very Low	Very Low	134			Very Low	Low	Low		Wetlands
	295	Greenwood	---	Very Low	Very Low	Very Low	Very Low	295			Medium	Very Low	Low		Wetlands
	298	Pits, borrow	---		Too Variable	--- Not Rated		298			Very Low	Very Low	Very Low	both	Soil Excavated
	299	Udorthents, smoothed	---		Too Variable	--- Not Rated		299			Very Low	Very Low	Very Low		Soil Excavated
	395	Chocorua	---	Very Low	Very Low	Very Low	Very Low	395			Very Low	Low	Low	sand	Wetlands
	397	Ipswich	---	Very Low	Very Low	Very Low	Very Low	397			Very Low	Low	Low		Wetlands
	495	Ossipee	---	Very Low	Very Low	Very Low	Very Low	495			Low	Low	Low		Wetlands
	497	Pawcatuck	---	Very Low	Very Low	Very Low	Very Low	497			Low	Low	low		Wetlands
	597	Westbrook	---	Very Low	Very Low	Very Low	Very Low	597			Very Low	Low	Low		Wetlands
	599	Urban Land	---	Low	Medium	Medium	Medium	599			Very Low	Low	Low		Urban Development
	699	Urban Land	---		Too Variable	--- Not Rated		699			Very Low	*	*		Urban Development
	799	Urban Land-Canton	---	High	Medium	High	High	799			Very Low	*	*		Urban Development

* Soils Potentials for Seacoast Area/Rockingham County, SCS
** Soils Information for Resource Planning, SCS January 1986
All other information from Rockingham County Soil Survey

locality and they are meant to indicate the relative quality of a soil for development when compared to other soils in the region. Factors used in developing the ratings include: depth to the water table; flooding potential; slope; depth to bedrock; stone cover (surface); permeability (septic tank absorption fields); and shrink-swell potential. These potential ratings are designed to aid in general land use decisions. They are not recommendations for soil use and they are not intended to serve as a substitute for a more detailed high intensity site analysis.

Readers of this plan interested in a further explanation of these soils ratings and potential interpretations should reference the publications directly. This Plan incorporates their information by reference and is intended as a cursory review of soils in the Town of Newmarket.

Of special concern should be land specifically suited for preservation/resource protection, wetlands and developable land. Wetlands also play a very important part in the terrestrial resources of the Town. Wetlands maps derived from SCS soils inventories and from LANDSAT imagery are on display at the Planning Office. The Town of Newmarket should ensure that all new or revised land use regulations be based on prudent, sustainable use of land resources.

Open Space and Recreational Inventory

The Town of Newmarket has numerous open space and recreational facilities. Open space can be defined as any environmentally sensitive land or water area that has ecological, recreational, or aesthetic value. Some examples include surface waters, floodplain, wetlands, aquifer recharge zones, agricultural lands and higher elevations. Many of these environmentally sensitive lands have been addressed in previous sections or will be considered in the water resource section. Recreational facilities can be defined as any major public or privately owned facility which provides public access to recreational areas or equipment. Both open space and recreational facilities are a vital contribution to a community's character and general health and well being of its population.

The 'Smart Report' identified a composite map of "Protected Lands" which represent all land protected from development through conservation easements, publicly owned land, and lands in current use. This map also delineates between town owned and properties currently in the LCIP program. Priority Conservation Properties from 1990 are also delineated. Within the next year the GRANIT system will complete cataloging and digitization of all protected and recreation parcels in the state. At that time, this information will be presented on the updated base map.

In the Spring of 1994 the Newmarket Recreation Center and associated fields was opened to the public. It serves as a major new recreational center which links adjacent resources in the town. The following is a list of major open space and recreational facilities in Newmarket that are so identified in the New Hampshire Inventory of Outdoor Recreational Facilities (OSP, 1981). This has been updated in 1994 by SRPC:

TABLE I.2

OPEN SPACES AND RECREATIONAL OPPORTUNITIES IN NEWMARKET[1]

Facility Name	Primary Use	Ownership	Acreage
Community Center	Recreation/Social Ctr	Municipal	
Beaulieus Field	Sports	Municipal	
New Town Area	Field Sports	Municipal	1
Newmarket Daycare	Field Sports	Private/Non-Profit	3
Newmarket Schools	Field Sports	Municipal	17
Nichols Ave Ballfield	Field Sports	Municipal	10
Coastal Storage Facilities	Fishing	State	1
Great Bay Access NH Fish & Game	Fishing	State	1
Rockingh. Country Club	Golf	Private/Non-Profit	105
Ice Skating Rink	Winter Sports	Municipal	1
Great Bay Racquet Club	Gymnasium	Private/Profit	3
Leo Landrock Memorial Field	Field Sports	Municipal	
Waterfront Park	Picnic Area	Municipal	

In total there are 111 acres of private, 37 acres of municipal and two acres of state-owned recreational land and open space. Public access to Great Bay through the state owned facility and municipal access to the Lamprey River should also be preserved, maintained and developed for increased access and recreational potential.

[1] Inventory of Outdoor Recreation Facilities in NH, 1981 OSP., updated by SRPC in 1994

There are a number of town-owned parks and fields that are available to all residents for picnicking and sports outings. These parks include the following:

1. Leo Landrock Memorial Field - Located behind the high school at South Main Street, this complex offers a playground and picnic area, horseshoe pits, soccer fields, baseball and softball field, shuffleboard courts and a performing stage area. At the entrance to the park there is a basketball court and the high school tennis courts. In the winter months, the park serves as a beginner cross country ski area.

2. Nichols Avenue Field - Located off Nichols Avenue, this secluded ballfield is available for softball, baseball, soccer field hockey and family outings.

3. Lamprey River Waterfront Park - This park includes a fishing area, boat launching area and picnic site on the Lower Lamprey River. This site has public access to the Lamprey River and Great Bay.

4. Upper Lamprey River Boat Launch - A natural two acre parcel on the Upper Lamprey River containing a boat launch for small boats and canoes. It can be reached by Beech Street and Salmon Street.

5. Beaulieus Little League Park - Found off Elm Street, the Little League Park serves the minor and major leagues.

In addition to the in-town recreational lands and open space in Newmarket there are also several areas in the surrounding region. Two (2) such facilities are operated by the University of New Hampshire seven miles to the north. College woods, on the UNH Campus in Durham, is a woodland recreational area with trails for hiking and cross-country skiing. Mendham pond is another recreational facility located off of Route 4 in Barrington ten (10) miles from Newmarket center.

Forest Resources

It was estimated in 1982 (UNH Institute of Natural Resources) that of 8,640 total acres in Newmarket, 2,990 were forested. This is a total of 39 percent. More recent estimates by SRPC put the estimate higher, although only a small portion of this is actively harvested.

Forest lands have been depleted over the years as a result of development. This is especially been the case in recent years. Between 1953 and 1974, the amount of forested land in Newmarket changed only slightly from 4,630 acres to 4415 acres (a change from 54% to 51% of total area. However, between 1974 and 1982 the amount of forested land in Newmarket was depleted by 1,475 acres (a change from 51% to 35%).

The economic value of Newmarket's forest land is hard to estimate. In 1986, timber production in Newmarket dropped off because of the downward economic shift in demand for hardwoods. Some of the reduced demand may also be attributable to the decrease of oil prices. The NH Department of Resources and Economic Development estimated the volume of forest products harvested (based on receipts of timber taxes) in Newmarket in past years as listed in Table 1-3 below. However, these volumes of production may be off by as much as 50 percent depending on the number of people that do not record timber harvests.

TABLE I.3
VOLUME OF FOREST PRODUCTS GENERATED IN NEWMARKET

Product	FY 1982	FY 1986	FY 1992
White Pine	170,271 b.f.	22,297 b.f.	135,655 b.f.
Hemlock (large)	76,840 b.f	6,210 b.f.	690 b.f.
All hardwoods	---	890	---
Pallets	8,155 b.f.	---	40,385 b.f.
Mixed Softwoods	---	---	---
Mixed Hardwoods	---	---	---
Fuel Woods	662 cords	71 cords	19 cords
Chips (some pulp)	---	36 cords	---
Pure pulp	---	16 cords	---

Source: New Hampshire Department of Resources and Economic Development.

Sand and Gravel Pits

The Town of Newmarket currently has nine permitted, active gravel pits. All pits fulfill the requirements of the Town Excavation Ordinance which is based upon the New Hampshire 155E statute. The pits are bonded and repermitted each Fall. Site Plans are on file in the Town Planning Office.

Wildlife

Newmarket is home to a wide variety of terrestrial and marine wildlife species. Although not given much consideration in the past, preservation of these species and the various environments has become a concern, especially with rapidly increasing rates of development. These habitats and their residents

can be the focus of recreational activity such as hunting, fishing, hiking, camping and birdwatching. Preservation of these sensitive environmental areas is essential to the continued quality of life in the town.

Newmarket's many swamplands and marshes are home to a variety of wildlife including wild turkey and deer. Although these areas are undesirable for development they are affected by local development. Water flow and quality are prime concerns to preserving these areas.

The random development patterns of the region have caused sections of land to become isolated habitats. Steps are currently being taken by the Conservation Committee to work with developers and landowners to obtain conservation easements. Since the problem is a regional one, the cooperation of surrounding towns is essential. Current goals include the establishment of wildlife corridors to allow wildlife migration from one conservation zone to another and the continued procurement of conservation easements.

Consideration must also be given to the town's aquatic environments. The Great Bay serves as an oyster nursery, sea otter habitat and winter roosting area for several bald eagles. The bay also is a major recreation are for the town and surrounding communities. Of constant concern is the preservation of its water quality and native animal species.

The 'Smart Report' contains a complete wildlife and wetlands inventory map based upon numerous sources including the New Hampshire Natural Heritage Inventory (NHNHI) and the New Hampshire Fish and Game department. A complete list of endangered and threatened species of animals and plants is listed in that report.

Recommendations

1. All development in Newmarket should be done with due regard to the protection of the terrestrial resources and aesthetic beauty of the town. Subdivision regulations and Zoning should be revised to protect these resources yet allow flexible standards. Special attention should be given to limits on upland development and the preservation of shoreland and wildlife habitat areas which have been identified in studies mentioned in this chapter. In addition, the following special preservation should be considered in all future ordinance revisions and applications:

2. Soil capabilities and suitabilities should be a major consideration when determining the best land use. Table 1-1 proposes the optimal use for each soil in Newmarket based on the highest suitability of all land uses considered. Future regulation updates should put increased emphasis on soil evaluation.

3. Future subdivision regulations should give increased regard to the wise use of land. Regulations should promote development patterns which respect and enhance the natural geography and discourage cookie cutter subdivision.

4. The Town should work with the Rockingham County Conservation District and the Soil Conservation Service to promote wise use of local terrestrial resources. Preservation of the remaining agricultural uses in town, and special protection of prime agricultural farmland should be a goal. This goal is based on the cultural, historic and social values of agricultural uses in Newmarket. This is also reflected in the generally held conception of Newmarket as a rural community which benefits from abundant resources and a strong sense of environmental preservation.

5. A strong Conservation Commission is essential for ongoing preservation and protection of Town resources. The Planning Board and Council should coordinate with and assist this Commission in promotion of common goals. The Newmarket Conservation Commission should continue to evaluate private and public land in town and determine potential areas that would qualify for open space or recreational use. Further the Commission should encourage environmentally conscious residents and developers to establish conservation agreements. A conservation agreement is a legally enforceable (RSA 477:45-47) two-party agreement designed to maintain "land and water areas predominantly in their natural, scenic or open condition or in agricultural, farming, open space or forest use". It allows landowners to retain ownership of his/her property as well as maintaining it as open space.

6. The town of Newmarket should promote the preservation of wildlife habitat whenever possible. Those areas that are already established or best suited for forest and wildlife habitat, and only marginally suited for residential development, should be protected and managed for forest and wildlife.

7. The Newmarket Conservation Commission should continue to seek increases in the town conservation fund through public and private contributions. These funds can be used as matching funds for conservation agreements such as those being implemented by the Trust for New Hampshire Lands.

8. Newmarket land use regulations (i.e. zoning ordinance, subdivision regulations and site plan review regulations) should recognize the need for open space and recreational use areas on residentially developed land. Flexible requirements should be implemented that would provide residential and commercial/industrial developers with options such as dedication of open space easements, off-site improvements or assistance in other protection areas.

CHAPTER II. WATER RESOURCES

Surface Waters

a. Watersheds and Waterbodies

The Town of Newmarket contains three major watersheds as identified by New Hampshire Department of Environmental Services (NHDES). The Lamprey, the Oyster River, and Exeter River. Map 2.1 delineates their boundaries. As it indicates, the Lamprey watershed encompasses the majority of Newmarket's total area. It covers the entire western part of the town bordering the east side of the Lamprey River. The Oyster River watershed covers the northeast portion of the town, and the Exeter, the southeast portion.

Map 2.1 also includes the water courses, waterbodies and wetlands of Newmarket. The major surface waters include the Great Bay estuary, the Lamprey River, the Piscassic River and Follets Brook. The Lamprey is the largest river in Newmarket. It flows southeasterly through Newmarket from Durham and discharges into the Great Bay. The Piscassic River flows northeast from Newfields, meets Folletts Brook, and converges with the Lamprey River in the northern corner of Newmarket.

The Water Supply and Pollution Control Division (WSPCD) of the State of New Hampshire classifies the water quality of surface waters in the state. All the waterbodies in Newmarket are Class "B" except for Piscassic River and Follets Brook which are Class "A". The legislative classifications of Class A and B waters are defined in RSA 149:3 as follows:

> Class A waters shall be of the highest quality and shall not contain more than fifty coliform bacterial per one hundred milliliters. There shall be no discharge of any sewage or wastes into waters of this classification. The waters of this classification shall be considered as being potentially acceptable for water supply uses after disinfection.
>
> Class B waters shall be of the second highest quality and shall not have objectionable physical characteristics, shall be near saturation for dissolved oxygen, and shall not contain more than two hundred forty coliform bacteria per one hundred milliliters. There shall be no disposal of sewage or waste into said waters except those which have received adequate to prevent the lowering of the physical, chemical, or bacteriological characteristics below those given above, nor shall such disposal of sewage or waste be detrimental to fish life or to maintenance of fish life in said receiving waters. Any stream temperature increase associated with the discharge of treated sewage, waste or cooling water shall not be such as appreciably interfere with use assigned to this class. The waters of this classification shall be considered as being acceptable for bathing and other recreational purposes, and after adequate treatment, for use as water supplies.

b. Wetlands

The wetlands of Newmarket, as defined by the Soil Conservation Service are also shown in Map 2.1. As it indicates, the majority of wetlands in Newmarket are in the Lamprey River Basin in the western part of town. A particularly large section of wetlands occur along the Lee-Newmarket town line and run south along the western side of Ash Swamp Road. This area is referred to as Tuttle Swamp.

A substantial amount of wetlands are also located along the Piscassic River in the southern central portion of Newmarket, down to the Newfields line. Wetlands also occur where the Lamprey River meets Great Bay.

c. Floodplains

Floodplains are areas adjacent to rivers, streams and other surface waterbodies which are susceptible to flooding during periods of excessive water run-off. Map 2.2 delineates floodplain boundaries in Newmarket. Floodwaters can damage buildings or structures located within the floodplains. The National Flood Insurance Program is a federal program designed to manage floodplains in order to reduce flood hazards and damage. It is administered by the Federal Emergency Management Agency (FEMA). Under this program, flood hazard areas are mapped and studied in participating communities. The community is then responsible for adopting and enforcing flood management regulations within designated areas. In turn, the federal government makes flood insurance available to citizens with property in the flood area.

Newmarket has been a participating community in this program since 1991. It has continually updated its ordinances to maintain this status. The last update was in January 1994. The floodplains along Newmarket's water courses are generally consistent with the wetland areas in town. There are flood zones along the Lamprey River, Piscassic River and its tributaries. Lubberland Creek, Follets Brook and Tuttle Swamp.

d. Wildlife, Fish and Recreation

Newmarket's surface waters are important for many resons besides human consumption. They play a role in the ecological system and provide habitat for a variety of fish, birds and other wildlife. In 1985, the Lamprey River was identified as "one of the state's most significant rivers for anadromous fish species, by New Hampshire Fish and Game Commission. The Newmarket fish ladder at the MaCallen Dam plays an important part of a state program to re-introduce herring, shad and salmon to the Lamprey River. Since installation of the ladder the water between the Wiswall and MaCallen Dams has become an important spawning and nursery area for herring and shad. Numerous birds such as mallard ducks, Great Blue Herons and and kingfishers, turtle and mussel species also take advantage of Newmarket's water habitats.

The variety of fish species in Newmarket are important for recreation as well as ecological value. The following statements are quoted from a New Hampshire Fishing Guide publication, (Nw Hampshirwe Fishing Maps;published by Delorme Publishing Co., Freeport ME,) "The Lamprey also boasts excellent bass fishing in its lower reaches, especially in the waters just below Wiswall Dam to the head of the tidewater in Newmarket." "The section of Newmarket near Route 108 below Packers Falls is the best pickerel and ice fishing spot in Southeastern New Hampshire".[1] The scenic beauty of Newmarket's river's and coastal areas can be enjoyed by residents, as well as draw tourists.

Groundwater Resources

a. Stratified Drift Aquifers

Stratified drift aquifers consist of sand and gravel, predominately sorted and laid out in layers. Newmarket's most productive groundwater resource is a stratified drift aquifer located in northwest Newmarket. It is identified on Map 2.2 using US Geological Survey delineations. The US Army Corps of Engineers delineates the surficial area of the aquifer to be .64 square miles. It lists the sustained yield of the aquifer at .46 mgd. This aquifer is the town's primary source of drinking water. Newmarket's two municipal wells, the Bennet and Seawall draw water from this aquifer. A report by Dufresne-Henry Inc. in 1993, entitled "Assesment of Water Needs", showed the total average daily production of the wells as .369 mgd. There are also a number of individual wells located on this site. These are identified on Map 2.2.

b. Bedrock Aquifers

Bedrock aquifers are composed of fractured rock or ledge. Groundwater is stored in the fractures. On the average bedrock aquifers yield smaller volumes of groundwater than wells drilled in stratified drift, and extracting water from them can be a costly procedure.

In 1982 the town of Newmarket contracted a study to produce a fracture trace analysis which delineates areas of high potential for the occurrence of major bedrock fracture zones. The study identified three potential areas, Schanda Farm, Hamel Farm, and Dziedic property. These have not been utilized due to distance from the existing municipal system and insufficient water production. Since Newmarket has sufficient municipal water supplies into the foreseeable future, it is doubtful the town would have count on these as a water source.

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[1]Chris J. Schoppmeyer, Newmarket Conservation Commission, testimony before the Subcommittee(s) on Public Lands, National Parks and Forests/Senate Committee on Energy and Natural Resources concerning the designation of segememts of the Lamprey River for study for potential addition to the National Wild and Scenic Rivers System.

Municipal Water System

Newmarket currently obtains municipal water supply through the Sewall and Bennet wells. According to the 1990 federal census, 85% of Newmarket households are serviced by municipal water. The two wells are located off Wadleigh Falls Road and draw from the stratified drift aquifer delineated by the US Geological Survey. Exploration programs undertaken at the time of the development of these two wells included examination of all deposits at potential well sites. Over 200 exploratory wells were driven, resulting in the final development of these two wells. It is unlikely that further investigation in Newmarket will be successful in locating another gravel pack well.

These two wells are currently producing sufficient water for the Town of Newmarket. In the 1993 Dufresne-Henry report it was found that the two wells could supply sufficient water for a minimum of five to seven years. The groundwater these wells draw from is protected by Newmarket's Aquifer Protection Ordinance.

Potential future water supplies include the Piscassic and Follets Brook and possibly the Lamprey River. Newmarket has a recently upgraded treatment plant (1990) which is currently deactivated because the wells are able to keep up with demand. According to the Dufresne-Henry report, the plant upgrade was accomplished at a time when Nemarkets population was rapidly increasing. The Town had to impose a water connection moratorium, and there was a waiting list for connections. Average daily water use was projected to increase at a steady rate. However, a change in the rate of new construction resulted in a drastic drop-off in use and in potential connections.

If in the future a shortage does occur or the wells become contaminated, the treatment plant can be put back on line and the surface waters can be readily utilized. The treatment plant upgrade served to improve the quality of the water treatment, increase capacity from 800,000 gallons per day to up to two million gallons per day, and provide new intake from the Lamprey River to increase source flexibilty. It also modernized and rehabilitated existing filters, sedimentation basin and clarifiers. Prior to this upgrade, no major improvement to the water treatment plant had occured since 1924.

The surface waters the treatment plant can utilize include Piscassic Brook, Follets Brook and the Lamprey River. These have been used in the past as Newmarket's primary municipal water source, and the treated water has consistently been of high quality. These waters are currently protected by protected by Newmarket's Shoreland Conservation Zone, and the Wetland Conservation District.

Potential Threats to Water Resources

a. Point Source Pollution

The term "point source" is defined by the US Environmental Protection Agency as "any disernible , confined and discrete conveyence from which pollutants may be discharged. Point pollution sources are characterized by relatively large volume discharges at specific points. Point pollution sources are monitored by Water Supply Pollution and Control Division through the National Pollution Discharge Elimination System (NPDES). Under this program, NPDES permits are must be issued for point pollution discharged into surface waters. Currently, there is only one permitted discharge source in Newmarket, the Newmarket Waste Water Treatment Plant. This discharges into the Lamprey River. It is located below the water treatment plant and other potential sites for water utilizatio, however the discharge has had an impact on shellfish beds in Great Bay.

b. Non-Point Pollution Sources

Non-point pollution sources of pollution results from land runoff, precipitation, atmospheric deposition, drainage, seepage. They involve the discharge of wastes from sources that are widely spread, difficult to identify and hard to control. Technically, the term, "non-point" source is defined as any source of water pollution that does not meet the legal definition of point source as defined by the US Environmental Protection Agency. In general, surface waters are more vulnerable to pollution from both point and non-point pollution sources because run-off is often unfiltered and flows directly into surface waters. Groundwater is better protected because the layers of rock and soil filter out most contaminants.

Non-point pollution sources do not require NPDES permits. The NHDES keeps records as to the type and location of potential non-point pollution sources. The latest records identify the following points in Newmarket, which are identified and located on Map 2.2.

- Landfill-Ash Swamp Road
- Sand/gravel-NH 152 (several)
- Junkyard-NH 152
- Salt storage pile (covered)- New Road
- Salt storage pile (uncovered)- New Road
- Storm drains -
- Salt Storage (uncovered)- Beech Street
- Pesticide application-Dame Road
- Pesticide application-Bay Road
- Pesticide application-NH 108 (Country Club)

c. Underground Storage Tanks

Potentially severe contamination can occur through the leakage of fuel and chemical storage tanks. Small amounts of these toxins can contaminate large amounts of groundwater and even render entire aquifers usable. WSPCD has developed regulations that address the design, construction, installation,

maintenance, testing and operation of underground storage tanks. Underground storage tanks are registered with NHDES. The March 1994 registration list shows that there are 10 underground petroleum storage tanks at seven different locations in Newmarket. The locations are:

- Newmarket Elementary School
- Newmarket Getty
- Newmarket High School
- Rosa Construction
- Eddies Service Station
- New England Telephone
- The United States Post Office

d. Water Quality Violations

Although surface water quality is generally high in Newmarket, there are currently several areas of concern where water quality standards are being violated. NH DES maintains an ambient water quality program. Under this program, water quality is checked at permanent sampling stations. In Newmarket, there are two stations on the Lamprey River, one above the MaCallen Dam and one at the wastewater treatment plant. In 1993 violations of copper and zinc were found at the MaCallen Dam. Copper, zinc and lead violations occured at the wastewater treatment plant. The MaCallen Dam site also has dissolved oxygen. Two stations on Moonlight Brook also show high readings of these metals as well as E. Coli violations. The sources of these are currently unknown. The town is working to investigate these problems.

Existing Water Resource Protection Programs in Newmarket

The Town of Newmarket has a number of water protection regulations. According to the Water Resource section of the Strafford County Regional Master Plan, Newmarket has more water protection than the other towns in the region. These consist of the following:

a. Aquifer Protection Ordinance:
This ordinance prohibits uses such as petroleum storage tanks, auto service stations, junk yards, road salt, liquid wastes, solid, hazardous wastes, to restrict potential water contamination. It encompasses the .64 square miles identified by the Army Corps of Engineers as an aquifer resource.

b. Flood Plain Development Ordinance:
This ordinance regulates developments in lands designated as special flood hazard areas by the Federal Emergency Management Agency.

c. Site Plan Regulations:
Newmarket's site plan regulations include extensive requirements for water protection.

d. Wetland Conservation District:
This district was enacted to regulate the uses of land and development of structures on soils that are defined as poorly or very poorly drained by the USDA Soil Conservation Service.

e. Subdivision Regulations:
Newmarket's subdivision regulations include requirements for water protection, including the allowance of cluster subdivision.

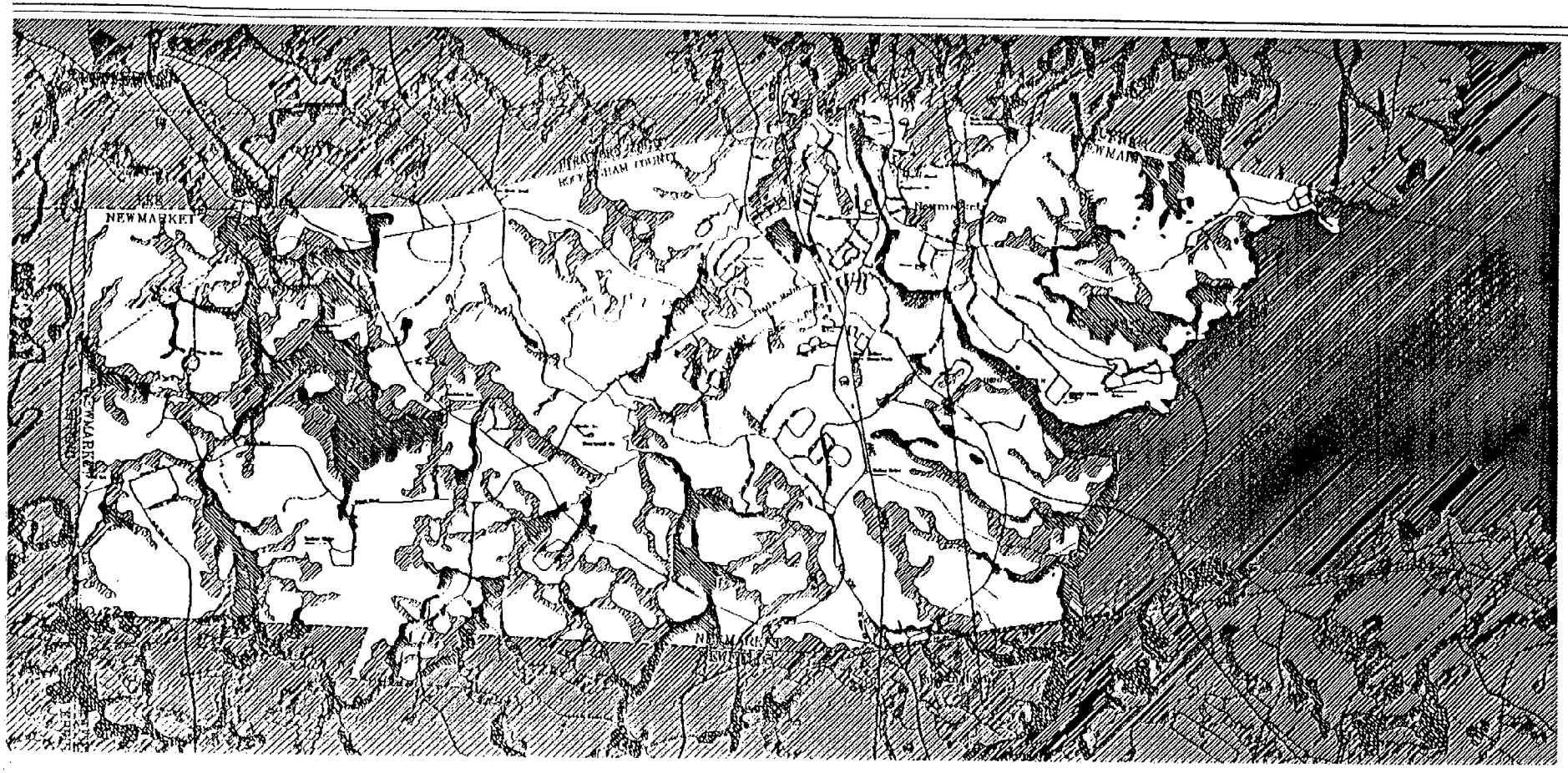
f. Shoreline Conservation Zone:
This zone applies strict land use and development regulations to land within 125 feet from the shores of Great Bay, Piscassic River, Lamprey River, Follets Brook and Tidal Marsh Areas.

Regional and State Protection Efforts

It is important for Newmarket to be aware and of regional and state actions regarding water resources. Newmarkets' water resources are directly impacted by other communities that share them, therefore it is in Newmarkets best interest to work cooperativelty to ensure their protection. The Lamprey River Advisory Committee is a permanent committee in Lee and Durham established under the state's Rivers Management and Protection Program. Representatives from Newmarket and Epping were added when communtioes elected to join Lee and Durham in a federal Wild & Scenic River study of the Lamprey. A principle responsibility of the Committee is to lead the communities in developing and implementing a management plan forthe river. The federal study is near completion at this time, and the the Committee has completed a draft mangement plan. The plan addresses water quality and flow, ecological resources, recreation, and historical resources. It makes recommendation s for regional protection efforts which Newmarket may wish to consider when developing its policies.

Also, by mid 1996, NH DES and Office of State Planning must develop a strategy for implementing Best Management Practices throughout the Lamprey watershed. Best Management Practices are techniques for controlling nonpoint source pollution such as grassed swales, seeding, timing the application of fertilizers. The federal Coastal Zone Act Reauthorization Amendments of 1990. mandate the development of BMP implementation plan for coastal watersheds by 1999.

Another regional issue for Newmarket to consider is the town of Durham and the University's use of the Lamprey River as a secondary water supply. The intake location is just above Wiswall Dam. While the utimate authority for protected instream flow is with the state, communication between the two towns and the University in relation to drawdown levels is desirable.



TOWN OF NEWMARKET, NH. 1994

Watersheds, Waterbodies, & Wetlands

Watersheds
Waterbodies
Wetlands
Watershed boundary

State boundary
County Boundary
Municipal boundary
Shoreline or perennial stream
Intermittent stream
Other hydrographic feature
Major highway
Secondary highway
Road or street
Unimproved road
Trail
Other road feature
Pipeline
Powerline
Railroad
Abandoned railroad

Strafford Regional Planning Commission

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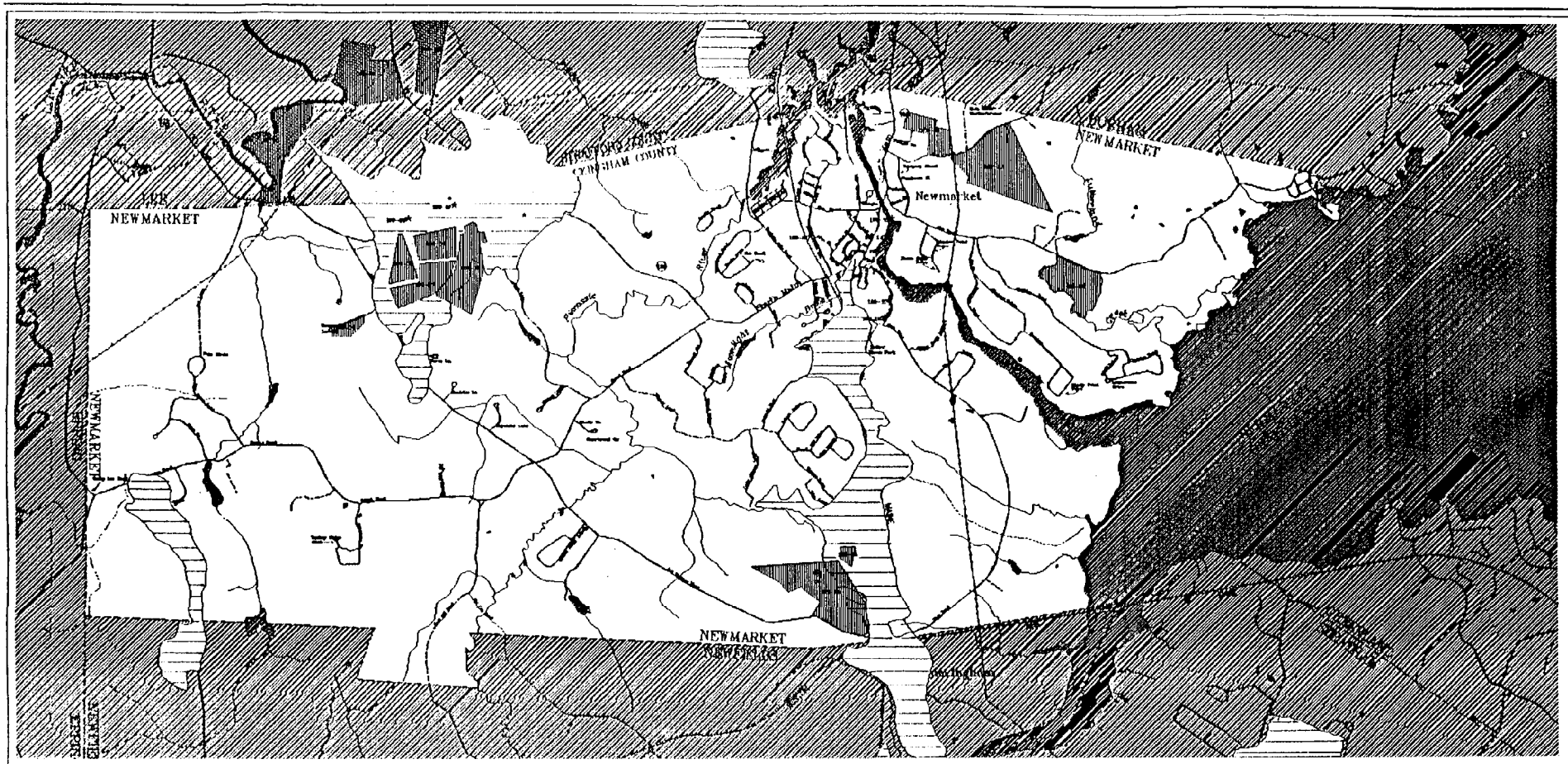
Map 21

Representational Map Only - Original 36x48" color version at Town Hall



TOWN OF NEWMARKET, NH. 1994

Municipal Wells, Aquifers, & Point/Nonpoint Pollution Sources

Stratified Drift Aquifer Locations

Municipal Well Locations

1993 Pollution Site ID#	Definition
350-04	Newmarket landfill
350-05	sand/gravel pit
350-06	sand/gravel pit
350-07	Newmarket Sand & Gravel
350-08	junkyard/auctale
350-09	sand/gravel pit
350-10	sand/gravel pit
350-11	Newmarket salt storage
350-12	Newmarket salt/sand mix
350-13	storm drain
350-14	storm drain
350-15	storm drain
350-16	salt/sand storage
350-21	pesticide application
350-22	pesticide application
350-24	pesticide application
350-25	pesticide application
350-26	pesticide application

State boundary

County boundary

Municipal boundary

Shoreline or perennial stream

Intermittent stream

Other hydrographic feature

Major highway

Secondary highway

Road or street

Unimproved road

Trail

Other road feature

Pipeline

Powerline

Railroad

Abandoned railroad

All base features are from USGS 124,000 scale Digital Line Graphs. All features distributed by Complex Systems Research Center, Durham, NH.

Aquifer information was prepared by the NH Department of Environmental Services, Water Resources Division. Information was then digitized by Complex Systems Research Center, Durham, NH.

Pollution Source locations were located and mapped by SRPC in accordance to standards set by the New Hampshire Office of State Planning

Strafford Regional Planning Commission

MILES

0 1/4 1/2 3/4 1

SCALE 1:12,000

Map 2.2

Representational Map Only - Original 36x48" color version at Town Hall

Recommendations

1. The Town of Newmarket should protect the quanity and quality of both surface and groundwater from detrimental land uses and provide for proper domestic, agricultural and recreational uses.

2. The shorelines of Newmarket's surface waters including Great Bay and the Lamprey, Piscassic, Follets Brook and other smaller streams and tributaries should be protected against detriment of quality or quanity

3. Water resources such as wetlands and aquifer recharge zones should be protected against overlying land uses that are detrimental.

4. Threats to water resources such as underground storage tanks, disposal of solid and toxic wastes, private septic systems, pesticide applications and road salting should be addressed in town regulations and policies.

5. Violations of water quality standards should be investigated thoroughly, cleared up in a timely manner, and action should be taken to ensure such violations do not occur again.

CHAPTER III. LAND USE

Land use determines and is determined by the character of the community. Existing land use patterns which have developed over the years are the result of numerous public and private decisions, and may not conform to an overall plan. Patterns of existing land use will in turn affect the location, type and amount of future growth in the community.

Virtually every development-related action which a community makes will have some impact upon the way the land is used. Other chapters of this plan which discuss housing, community facilities, transportation and economic development are all in some way related to land use. Recommendations to extend sewer lines or improve transportation infrastructure affect future land use since availability of this infrastructure expands the type of development which can occur.

When a community makes a decision of this type, it is establishing land use policy. Therefore, it is most important that there be an overall plan for coordinated land use development in order to make optimum use of this limited resource. This chapter will identify Newmarket's existing land use and examine how it has changed over the past 30 years. This analysis will be reflected in the Future Land Use chapter where recommendations will be made to encourage the type of future growth that residents of Newmarket would like to see.

The manner in which Newmarket has accommodated its substantial non-agricultural growth since the end of World War II has been dependent on the interplay between natural and man-made features. Like all of New England, Newmarket has seen a decrease in agriculture with accompanying reforestation and development. The 1980's saw a further decline in agriculture and a slight decline in forested areas as residential development increased. Newmarket's recent development pattern - occurring outside the town center - has evolved into three distinct forms of land use which are prevelant throughout the region: strip, sprawl and dispersement. These land use forms are defined below.

- Strip - A strip development pattern occurs along high volume roadways which radiate out from town centers and population clusters. Strip development is usually characterized by a continuous mixture of residential housing and commercial development of the stop-and-go variety. Highway access is the primary factor driving this type of development, however, zoning on the local level is also a factor. Many communities set up commercial zoning districts as strips along major roadways.

  A haphazard location of a variety of land uses can result in potential blight, traffic problems, noise problems, and discourage the effective delivery of municipal services. The extension of public utilities becomes difficult in a strip development pattern because there is no centralization of development, rather, development extends outward along the roadway. This results excessive utility costs.

- Sprawl - A sprawl development pattern usually begins as a strip development pattern followed by a horizontal or lateral expansion of land uses which extend back from the roadway. Once again, the roadway is the dominant land use influence. This expansion is generally characterized by residential subdivisions, however, commercial and industrial uses may be seen in areas where zoning controls are lacking. The final stage of a sprawl development pattern is the gradual filling in process of the vacant land between the major roads and the collector roads as the urban area continues to radiate outward.

  Problems associated with a sprawl development pattern include inefficient traffic circulation arrangements, incompatibly located land uses, and uncoordinated patches of open, undeveloped land (at least in the early stages). Examples of this can be seen in subdivisions in the same vicinity, all ending in dead end streets with long cul-de-sacs instead of an integrated road network.

  A sprawl development pattern can contribute to a community's long-range planning effort if properly handled through a comprehensive subdivision review and site planning process. Such a process should ensure the provision of adequate public utilities, a coordinated roadway design and layout, plus public amenities such as parks, active recreation areas, greenbelts and other open spaces which help to break up the monotony of continuous conventional development.

- Dispersement - The main feature of a dispersed development pattern is that no discernible land use pattern can be seen. Rather, a variety of land uses are scattered over a large, rural area. Areas containing a dispersed development pattern are low density in nature and are usually lacking a single, dominant land use feature such as a highway, industry, etc. This development form covers the majority of Newmarket's non-downtown land area. The town remains primarily rural in nature, with various land uses spread out intermittently along the landscape.

  Dispersed development patterns can lead to several incompatible land uses in close proximity to each other. Newmarket has made a concerted effort to separate incompatible land uses into distinct zoning districts and to locate such districts in harmony with the landscape and character of the community.

A visual review of land use patterns in Newmarket shows dispersed residential development along major roadways, but limited commercial strip and sprawl development. NH 108 serves as a limited commercial and residential corridor immediately north and south of the downtown. It is likely that development pressure will force the question of strip development along this corridor in the near future.

A summary of existing land use patterns is presented in Table 3-1 and is represented in Map 3-1.

LAND-USE
TOWN OF NEWMARKET, NH.
1994

Strafford Regional Planning Commission

- Single Family
- Multi-Family
- Mobile Home Park
- Commercial
- Industrial and Utilities
- Urban Center/Mixed
- Developed Institutional
- Public/Recreational
- Agricultural
- Open Space/Vacant
- Approved Subdivision
- Forest
- Water

- State boundary
- County boundary
- Municipal boundary
- Shoreline or perennial stream
- Intermittent stream
- Other hydrographic feature
- Major highway
- Secondary highway
- Road or street
- Unimproved road
- Trail
- Other road feature
- Pipeline
- Powerline
- Railroad
- Abandoned railroad

MILES
0 1/4 1/2 3/4 1.0
SCALE 1:12,000

Representational Map Only - Original 36x48" color version at Town Hall

The inventory of Newmarket's existing land use was compiled using digitized, generalized land use information prepared by the Strafford Regional Planning Commission. This data is collected for all communities in the region and was last updated in Newmarket in 1993. The data was derived from 1989 Soil Conservation service aerial photos and is updated through field checks and revised photointerpretation. It should be noted that the data represent generalized land use derived from a non-parcel based system. The downtown area, which is an area of commercial and residential activity is mapped as urban center/mixed use.

Acreage figures given in Table 3.2 show estimated change in each land use category between 1953 and 1982.[1] Comparative data is provided through 1982 Land Use Survey of Rockingham County, New Hampshire produced by the University of New Hampshire utilizing aerial photos and primitive GIS techniques[2].

Existing Land Use Patterns

As in the case of most New Hampshire mill towns, the village center developed at the power source (the Lamprey River) and has remained relatively unchanged with a decrease seen only in the area of industrial and manufacturing developments. The transition in residential development over the past 20 years has spread from the downtown area to the outer fringes; the Bennett Way/Hersey Lane area (located just south of the town core) is a new center of apartment and condominium development with 274 units completed and 498 approved. This area, along eith the Sewall Farm subdivision, has the most dense development of single family units, totaling over 110 homes and 97 condos. Moody Point and other fringe developments overlooking Great Bay as well as other intense residential development have the potential of consuming large amounts of forested lands if all approvals are built.

[An update of approved subdivisions and developments from 1988 on will be appended to this section based upon reports previously prepared by the Town Code Enforcement Officer and Town Planner. This section will also be updated as the Planning Board reviews the SRPC base and land use date in detail during the Master Plan Update process.]

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1 The UNH land use estimation method differs from that used by SRPC. It is impossible to directly compare land use change data for the entire 1953-1993 period due to these differences. If the UNH authors choose to update their data, this will be used for comparison.

2 The UNH technique used a sampling techniqu in which aerial photos serv3ed as the base map and a five acre grid overlay was developed. The land use located at the center point of each 5 acre parcel was identified and that land was awarded 5 acres. This sampling technique, while omitting land uses under 5 acres, allowed the researchers to measure land use changes over the 23 year period. Although less accureate than the SRPC method, it is the only comparitive data available over the decades. The differences between this process and the SRPC method also produce differing total land and water acreages.

a. Residential

Residential development accounts for approximately 1531 acres or about 19.1% of Newmarket's total land area. As such, it is the predominant use of developed land. The total area of land that is devoted to residential development suggests that Newmarket is a bedroom community for the surrounding metropolitan area.

b. Developed

The amount of developed land in Newmarket increased dramatically between 1953 and 1993. It is estimated that Newmarket lost over 54% of its agricultural land in this period. Most of that went into residential development. This trend of developed land increase continued at a much slower rate in the late 1980's and early 1990's. Several subdivisions have recently been approved which continue the slow transition of agricultural and forested land to residential use.

c. Commercial/Industrial

Newmarket shows little change in its commercial land use pattern since the 1980's. There has been little visible increase in the overall area devoted to commercial use. Newmarket has been able to maintain its pattern of concentrating commercial use in the downtown area, ignoring the national trend towards scattered or "strip" commercial development along major highways. Although the recent economic downtown has caused a decrease in activity downtown, it remains Newmarket's center for shopping, leisure time and business. Unfortunately, residents are increasingly being forced to look outside of town for basic services and amenities. The downtown is developing a higher percentage of "professional services" and fewer basic needs. Due to the majority of Newmarket's commercial and industrial activity occurring within the urban center/mixed used zone, the current land use coverage offers little descriptive data. Only 116 acres, or less than 2% of land area, of commercial and industrial activity have been identified outside of this mixed use center.

Newmarket's pattern for industrial development has gone through major changes during the last decade. The changes are represented by the addition of two Industrial Parks and the decline of manufacturing in the downtown "Mill Area". The addition of the Industrial Parks broke with the historic pattern of concentrating industrial uses in the heart of urban areas. Now industrial uses are located outside the center of town while much of the space that has been devoted to industry in the center has been left vacant or converted to residential use.

d. Forested

All land use information available points to the majority of land in Newmarket remaining predominantly forested, or reforested agricultural areas.

TABLE 3.1 **EXISTING LAND USE NEWMARKET, 1993**

Classification[3]	Acres	Percent
Single Family Residential	1531	19.1
Multi-Family Residential	193	2.4
Mobile Home Parks	27	1.3
Commercial	10	-
Industrial	106	1.3
Urban Center/Mixed	143	1.7
Developed Institutional	33	-
Public/Recreational	59	-
Agricultural	798	9.9
Open Space/Vacant	45	-
Forest	5084	63.0
Water		1050
TOTAL LAND AREA		**8031**

Source: Strafford Regional Planning Commission - Regional Land Use Study updated 1993

TABLE 3.2 **LAND USE ESTIMATES AND CHANGES IN NEWMARKET 1953 TO 1982**

LAND USE	1953 Acres	%	1974 Acres	%	1982 Acres	%	53-82 Acres	%
Agriculture	1980	25.6	1160	15	905	11.7	-1075	-54.4
Developed	595	7.7	1860	24.1	3305	42.8	2710	455.4
Forested	4630	60.0	4415	57.2	2990	38.7	-1640	-35.4
Idle	375	4.8	165	2.1	370	4.7	-5	-1.3
Other	150	1.9	115	1.4	140	1.8	-10	-6.6

Source: 1953-1982 UNH Land Survey of New Hampshire
This data is based upon a 5 acre grid cell sampling process outlined in the publication Land Use Change: Rockingham County New Hampshire 1953-1982, published by the NH Agricultural Experiment Station, UNH January 1987, Research Report #112

[3] Generalized Classification System Standards are in Appendix A

CHAPTER IV. POPULATION

The analysis of a community's population: changes, migration and age distribution is a fundamental aspect of a community's master plan. Significant change's affect a community's land use and development patterns, its economic base, employment outlook, and its demand for water, housing, education, and other community resources.

This chapter examines historical population trends in the town of Newmarket and places the town in the context of the larger county and metropolitan area. It looks at the impact of natural increase and migration on the town's population and trends in age distribution. The chapter also contains population projections through the year 2015. It concludes with a summary of some of the basic characteristics of Newmarket's population.

Population Trends

As Figure 4.1 illustrates, Newmarket's population remained fairly stable through most of this century with some decline in the early twenties and thirties. The 1910 recorded population figure of 3,328 was not attained again until the 1970 census.

TABLE 4.1 NEWMARKET POPULATION 1890-1990

Year	Population	Year	Population
1890	2,742	1950	2,709
1900	2,892	1960	3,153
1910	3,348	1970	3,361
1920	3,181	1980	4,290
1930	2,511	1990	7,157
1940	2,640		

Source: US Census 1890-1990

Through the 1960s, Newmarket increased in size from 3,153 in 1960 to 3,361 in 1970, a moderate increase of 6.6%. In 1970 population began to increase more substantially, and by 1980 it reached 4,290 a growth rate of 27.6%. As Tables 4.1 and 4.2 indicate, this growth was consistent with regional and state wide trends, with Newmarket's growth rate being lower than the rest of Rockingham County.

In the 1980's Newmarket grew at a rate much greater than both the county and the state, experiencing its largest population increase to date. Population increased from 4,290 in 1980 to 7,157 in 1990, a 66.8% growth rate. Population density increased from 258 persons per square

mile in 1970 to 550 in 1990. Newmarket's increased population density is important to consider because of its potential impact on local resources and services. From 1990 to the present, this population increase slowed down as result of the recession which began in late 1989.

FIGURE 4.1 **NEWMARKET POPULATION 1890-1990**

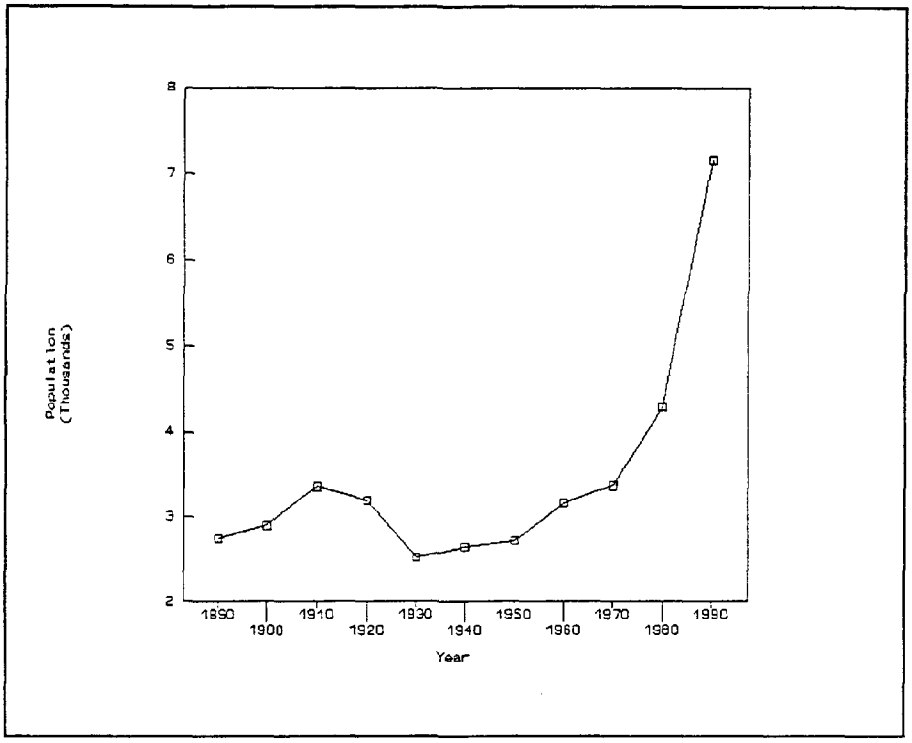

Figure 1

TABLE 4.2 **POPULATION BY DECADE**
NEWMARKET, ROCKINGHAM COUNTY, NEW HAMPSHIRE

	1960	1970	1980	1990
Newmarket	3,153	3,361	4,290	7,157
Rockingham County	98,642	138,951	190,345	245,845
New Hampshire	606,921	737,578	920,610	1,109,252

Source: US Census 1960-1990

TABLE 4.3 **PERCENT GROWTH BY DECADE**
NEWMARKET, ROCKINGHAM COUNTY, NEW HAMPSHIRE

	1960-1970	1970-1980	1980-1990
Newmarket	6.6%	27.6%	66.8%
Rockingham County	40.8%	37.0%	29.1%
New Hampshire	21.5%	24.8%	20.4%

Source: US Census 1960-1990

Natural Increase and Migration

Population growth and change can be attributed to two fundamental components; natural increase and migration. Natural increase refers to the excess of births over deaths in any given time frame, while migration refers to the number of people who have moved into or out of a given geographic area.

In-migration has played a major role in New Hampshire's growth since the 1970's, although that trend has slowed somewhat during the first half of the 1980s. In-migration accounted for nearly 77% of the growth attained during the 70s, but between 1980 and 1985, this proportion had slowed to 58%.

As Table 4.4 illustrates, Newmarket demonstrates a slightly different pattern. Between 1970 and 1980 nearly 87% of its increase was due to in-migration. Between 1980 and 85, Newmarket continued its high level of in-migration, with nearly 80% of the total population increase attributable to people coming into Newmarket from other communities. From 1985 to 1990 this pattern began to change, with only 68% of the population growth attributable to in-migration and 31% gained from natural increase.

Table 4.5, which shows comparative birth and death rates for Newmarket, Rockingham County and the State, reveals an emerging trend in Newmarket's population. Between 1970 and 1980, Newmarket experienced fairly low birth rates as compared with the county and the state. Through the 1980's, Newmarket's birth rate increased steadily, until in 1990 its birth rate of 19.5 per thousand of population exceeded both the county and the state figures.

TABLE 4.4 **BIRTHS, DEATHS AND NATURAL INCREASE NEWMARKET, 1980-1990**

Year	Births	Deaths	Natural Increase
1980	46	31	15
1981	52	29	23
1982	71	36	35
1983	87	40	47
1984	102	33	69
1985	128	47	81
1986	130	34	36
1987	149	29	120
1988	148	37	111
1989	162	37	125
1990	140	43	97

Total Population Increase 1980-1985	1,298	
Natural Population Increase 1980-1985	270	20%
Population Increase Due to Migration	1,028	80%

Total Population Increase 1985-1990	1,569	
Natural Population Increase 1985-1990	489	31%
Population Increase Due to Migration	1,080	68%

Source: Vital Statistics Report for the State of New Hampshire

TABLE 4.5 COMPARATIVE BIRTH AND DEATH RATES
NEWMARKET, ROCKINGHAM COUNTY, NEW HAMPSHIRE

Birth Rate/ 1000 Population			
Year	Newmarket	Rockingham County	New Hampshire
1970	16.6	19.8	18.3
1980	10.7	15.6	14.9
1990	19.5	16.6	15.7
Death Rate/ 1000 Population			
Year	Newmarket	Rockingham County	New Hampshire
1970	9.5	8.2	10.2
1980	7.2	7.0	8.2
1990	6.0	6.5	7.6

Source: Vital Statistics Report for the State of New Hampshire

Age Distribution

Table 4.6 shows the population of Newmarket broken down by age for 1980 and 1990. It contains the percentage of the total population that each age group comprises and the percent change between 1980 and 1990.

a. Pre-school Population

The pre-school population (ages 5 and under) of Newmarket has increased dramatically since 1980. In 1980 there were 232 children in this category, representing 5.4% of the total population. In 1990 there were 639, representing 8.9% of the population. This change represents a 175% increase, the second largest of all the age categories. A large number of children can be expected to enter the lower school grades in the immediate future, and further off, the high school.

b. School-Age Population

Total school age population increased by about 40% from 1980 to 1990. Most of this increase occurred as a result of dramatic growth (144%) in the number of children in the age category of five to nine years. In comparison the number of children aged 10 to 14 years only increased by 43%, and the population of persons aged 15 to 19 (high school age) decreased by 20%. Again, this represents an immediate impact on the lower school grades and a future impact on the high school.

c. Working Age Population

The 18 to 64 age group is often referred to as the labor force, although not all persons in this group are actually employed or looking for work. In Newmarket, two age groups in the labor force, persons from 25 to 34 years and persons 35 to 44 years grew dramatically from 1980 to 1990. The number of persons in the 35 to 44 age category changed by the largest percentage showing a 216% increase. In 1980 this age category represented 9% of the population, in 1990, 16%. The number of persons in the 25 to 34 age group represented 19% of the population in 1990, 25%.

A look at the comparative age distributions of Newmarket and Rockingham County indicate that in of 1990, Newmarket's population contained a higher proportion of people between the ages of 20 through 24 than the County. Some of the difference in population distributions can be accounted for by University of New Hampshire students living in Newmarket. However, even discounting this influence, it appears that Newmarket has attracted more young adults than has the surrounding county.

In further comparing Newmarket to Rockingham County, Newmarket's population contains a much higher percentage of persons in the 25 to 34 years age category than Rockingham County and a lower percentage of persons in the 45 to 54 age category. Overall, Newmarket contains more young members of the labor force and fewer older members of population than Rockingham County. This is illustrated in Table 4.7.

d. Elderly Population

The number of elderly in Newmarket (ages 65 and over) grew by 19% from 1980 to 1990. However, the number of elderly declined as a percentage of Newmarket's total population since 1980. In 1980, this category comprised 10.5% of Newmarket's population and in 1990 only 7.5%. In Rockingham County in 1990 elderly population made up about 9% of the population.

TABLE 4.6 AGE DISTRIBUTION
NEWMARKET 1980 and 1990

Age Cohorts	1980 Total Count	Percent of Population	1990 Total Count	Percent of Population	Percent Change
Under 5 years	232	5%	639	9%	175%
5 to 9 years	199	5%	485	7%	144%
10 to 14 years	269	6%	385	5%	43%
15 to 19 years	353	8%	283	4%	-20%
20 to 24 years	835	19%	921	13%	10%
25 to 34 years	802	19%	1852	26%	131%
35 to 44 years	369	9%	1165	16%	216%
45 to 54 years	404	9%	462	6%	14%
55 tp 64 years	376	9%	425	6%	13%
65 to 74 years	277	6%	340	5%	23%
75 years and over	174	4%	200	3%	15%

Source: US Census 1980, 1990

TABLE 4.7 AGE DISTRIBUTION
NEWMARKET AND ROCKINGHAM COUNTY

Age Category	Newmarket	Rockingham County
0 to 19 years	25.0%	26.0%
20 to 34 years	38.7%	27.5%
35 to 54 years	22.7%	29.5%
55 to 64 years	5.9%	7.5%
65 years and over	7.5%	9.5%

Source: US Census

Population Projections

Population projections are not a definitive look at the future. They are planning tools, which can paint scenarios as to what may occur if present trends (or other assumed trends) were to continue into the future. Unexpected change, such as an unanticipated economic recession or the addition of a large housing development, can alter projections drastically. Projections are therefore used best when viewed as a general guide where the trend rather than the specific number is focused upon, and they should be updated continuously to incorporate new information. Population projections for the town of Newmarket and surrounding communities have recently been released by the Office of State Planning (OSP) and the private consultant developing the Pease Surface Transportation Master Plan.

New Hampshire OSP projections up to the year 2015 were developed through a Cohort Projection System. It is based on three components, fertility , mortality and migration rates. Projections are first made on a county basis, and then brought to the local level through analysis of the community's historical share of its respective county's growth.

These projections show growth for the town of Newmarket slowing considerably compared to the last two decades. As Table 4.8 shows, between 1990 and 2000 population is expected to grow by 5.2%. This is substantially less than the 66.8% increase that occurred in the 1980's. This slow growth rate is projected to continue to the year 2015. Newmarket's growth rate is also expected to be slower than Rockingham County, but slightly higher than the state.

Projections from the Pease Surface Transportation Master Plan show growth increase at a greater rate than OSP figures. Two factors could explain this difference. First, Pease forecasts are based on full build out of the Pease Tradeport by the year 2011. Second, the Pease projections include planned transportation improvements from the State of New Hampshire's Ten Year Transportation Plan. The model used in Pease study correlates population growth to areas best served by highway and transit systems. Like OSP, the Pease study shows other communities in the region growing faster than Newmarket.

TABLE 4.8 POPULATION PROJECTIONS

Office of State Planning Projections

	1990	1995	2000	2005	2010	2015	Average Five Year Growth	Total Growth 1990-2015
Newmarket	7,157	7,197	7,535	7,952	8,240	8,740	4.0%	22.1%
Rockingham County	245,845	249,877	266,218	282,972	296,418	312,103	4.8%	27.0%
New Hampshire	1,109,117	1,123,605	1,175,262	1,233,157	1,281,541	1,335,817	3.7%	20.4%

Pease Surface Master Plan Projections

	1990	2001	2011
Newmarket	7,157	7,961	9,024

Sources: Office of State Planning,
"Population Projections-Total Population for
New Hampshire Cities and Towns 1990-2015"
October 1993 and Vanasse Hangen Brustlin, Inc.
"Pease Surface Transportation Master Plan"

Other Population Characteristics

a. Educational Attainment

Table 4.9 depicts the educational attainment for persons over the age of 18 in Newmarket, Rockingham County and New Hampshire. Newmarket's educational levels are, for the most part, consistent with those of the county and the state. A slightly higher percentage of Newmarket's population has a bachelor's degree than in the county and state.

TABLE 4.9 EDUCATIONAL ATTAINMENT

Education	Level	Newmarket		Rockingham County		New Hampshire	
		number	percent	number	percent	number	percent
Less than	9th Grade	263	5%	7,068	4%	49,691	6%
9th-12th Grade	No Diploma	548	10%	19,264	11%	100,690	12%
High School	Graduate	1,592	29%	58,105	32%	265,731	32%
Some College	No Degree	1,087	20%	38.110	21%	166,385	20%
Associate	Degree	539	10%	15,553	9%	64,025	8%
Bachelor's	Degree	1,034	19%	30,649	17%	126,495	155
Graduate or	Prrofess-ional Degree	428	8%	12,947	7%	57,112	7%

*Includes only persons 18 years and over

Source: US Census 1990

b. Income Levels

As Table 4.10 indicates, the median family and household income in Newmarket is below that of the state and county. Of the 234 communities in Rockingham County, Newmarket is ranked 136 in terms of income. This is consistent with Newmarket's 1979 income level.

TABLE 4.10 **MEDIAN FAMILY AND HOUSEHOLD INCOME**

	Family Income	Household Income
Newmarket	$39,444	$32,348
Rockingham County	$46,942	$41,881
New Hampshire	$41,628	$36,329

Source: US Census 1990

c. Occupational Characteristics

Table 4.11 shows the percent employed by occupation for Newmarket and Rockingham County for 1980 and 1990. 1990 census data shows that Newmarket has a higher percentage of persons than the county employed in precision, production, craft and repair. It is slightly lower in managerial and professional specialty and technical, sales and administrative. However, managerial and professional specialty jobs grew by the greatest percentage of all the occupations, which could indicate a trend toward white collar professions in Newmarket.

TABLE 4.11 **OCCUPATION CLASSIFICATION 1980-1990**

Occupation	1980		1990	
	Newmarket	Rockingham County	Newmarket	Rockingham County
Managerial & Professional Specialty	19%	24%	27%	31%
Technical,Sales & Administrative Support	28%	30%	31%	33%
Service	12%	11%	12%	11%
Farming, Forestry, Fisheries	2%	1%	1%	1%
Precision, Production, Craft, Repair	18%	15%	16%	13%
Operators, Fabricators & Laborers	20%	18%	13%	12%

Source: US Census 1980, 1990

CHAPTER V. HOUSING

Housing Trends

The total number of housing units in Newmarket has increased significantly over the last two decades, particularly over the past 13 years. From 1970 to 1980, 630 units were added, representing a 58.7 % increase. From 1980 to 1990, 1426 units were added, representing an increase of 76.7%. In comparison the state showed an increase of only 44.8% These changes are shown in Table 5.1 and Figure 5.1. This growth in new housing has slowed since the 1980's. Only fifty one building permits were issued from 1990 to 1992, as indicated in Table 5.2.

TABLE 5.1 **CHANGE IN TOTAL HOUSING UNITS NEWMARKET 1960-1990**

Year	Units	Change	%Change
1960	922	N/A	N/A
1970	1,171	249	27%
1980	1,859	688	58%
1990	3,285	1,426	76%

Source: US Census 1960-1990

CHANGE IN HOUSING UNITS, NEWMARKET 1960-1990

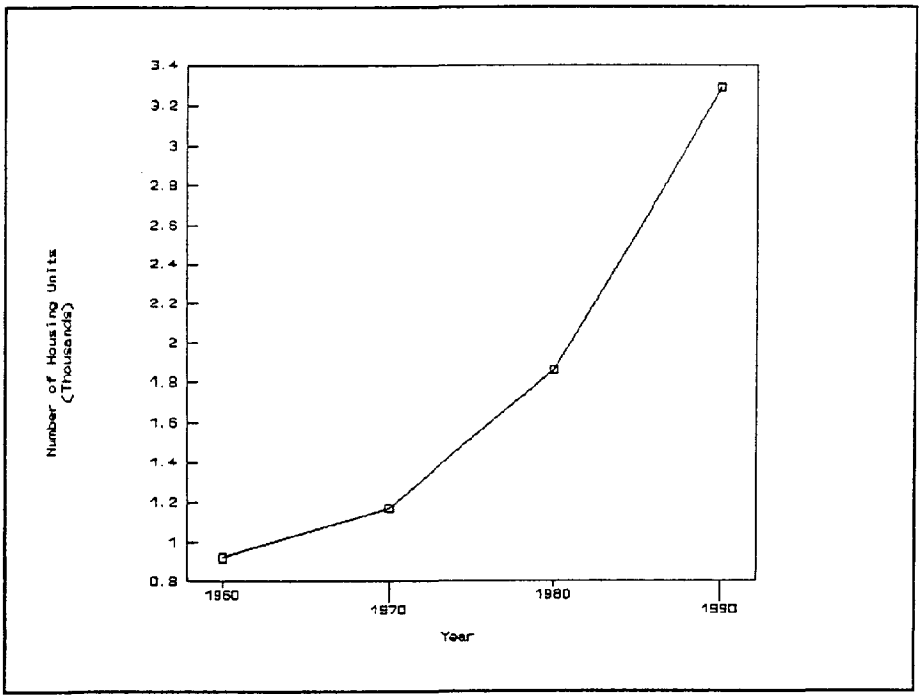

Table 5.2 shows the percentage and the type of housing stock in Newmarket. As it shows, Newmarket has traditionally had an almost even ratio of single-family and multi-family housing units. In the 1980's, the proportion of multi-family units increased to make up over half of the housing stock. In Rockingham and Strafford Counties, multi-family units comprise about 30% of total housing units. While the number of single housing family units grew, census data for the year 1990 shows that single family units represent only 36% of the total housing units in Newmarket. In 1980 they constituted about 50%. Recent permits have been predominantly for single family units. Table 5-3 shows that 48 of the 51 building permits issued from 1990 to 1992 were for single family units. Table 5.4 compares Newmarket housing type for surrounding communities.

TABLE 5.2 **NEW HOUSING 1990-1992, NEWMARKET**

	Single Family	Multi Family	Manufactured
1990 Census Count	1,199	1,852	198
1990	28	3	3
1991	6	0	0
1992	14	0	1
Total Change	48	3	4
Total Units 1992	1,247	1,858	202

Source: US Census and Newmarket Building Permits

TABLE 5.3 **HOUSING STOCK BY TYPE OF DWELLING NEWMARKET 1970-1990**

Year	Single Family		Multi-Family		Mobile Homes	
	number	percent	number	percent	number	percent
1970	541	46%	547	47%	76	6%
1980	937	50%	780	42%	135	7%
1990	1,199	36%	1,852	56%	198	6%

Source: US Census 1970-1990

TABLE 5.4 **NEWMARKET AREA**

Town	Single Family	Multi-Family	Mobile Homes
Durham	60%	38%	0%
Lee	64%	21%	13%
Epping	43%	14%	12%
Newfields	82%	14%	3%
Newmarket	36%	56%	6%

Source: US Census 1990

Table 5.5 shows the percentage of renters and owners of occupied housing units in Newmarket, Strafford and Rockingham Counties. Newmarket has a much higher percentage of renters than both counties, playing the role of a regional provider of rental housing. The 1980 census shows that this was also true a decade ago.

TABLE 5.5 STATUS OF HOUSING OCCUPANTS
NEWMARKET, STRAFFORD AND ROCKINGHAM COUNTIES

1990	Newmarket		Strafford County		Rockingham County	
Owner Occupied	1493	52%	24453	65%	64324	72%
Renter Occupied	1405	48%	13291	35%	24794	28%
Total Occupied Units	2898		37744		89118	
1980	Newmarket		Strafford County		Rockingham County	
Owner Occupied	862	49%	18682	64%	46765	71%
Renter Occupied	881	51%	10422	36%	19186	29%
Total Occupied Units	1743		29104		65951	

Source: US Census 1980, 1990

The value of owner-occupied housing has risen dramatically in Newmarket since the 1980 census. In 1980, the median value of a single family home was $46,000. In 1990 census the value was $131,500. However, Newmarket has among the lowest rental and owner occupied housing costs in Rockingham County. Out of 37 towns, Newmarket has the fifth lowest costs for owner occupied housing units. It has the seventh lowest median rent.

The median year that housing stock in Newmarket was built is 1977. This is higher than the state average and that of Strafford and Rockingham County. A large proportion (42%) of Newmarket's housing units were built in the 1980's. Newmarket also has a substantial number of housing units built prior to 1939. These older units comprise 23% of Newmarket's total housing stock, the second largest housing age group.

Almost 95% of the pre-1939 housing units are located in the downtown area. This reflects the historic development pattern of the Town around the Newmarket Manufacturing Company on the Lamprey River. "The average age of structures in the Village area is in excess of 100 years. Residential construction is predominantly wood framed, characterized by antiquated heating and plumbing facilities and inadequate insulation. A significant percentage of these structures contain

residues of lead based paints and are poorly suited to meet other modern code specifications for fire detection and escape, electrical wiring and energy efficiency.[1]

Vacancy Rates

One of the indicators of the "health" of a housing market is the vacancy rate. If the vacancy rate is too low there may not be enough units to accommodate the needs of the population. A "tight" housing market will also tend to drive up the cost of housing. Conversely, a high vacancy rate may be indicative of a high percentage of substandard housing or a struggling local/regional economy.

Opinions vary as to what constitutes an acceptable vacancy rate, but general standards normally applied are approximately 5% for rental housing and 2% for owner occupied housing. 1990 census data shows that the Newmarket vacancy rate in 1990 was 1% for owner and 9% for rental.

Assisted Housing

The Great Hill Terrace is a public housing facility containing 50 subsidized dwelling units which are administered by the Authority. The other facility in town is called Newmarket House which contains 27 dwelling units reserved for elderly and handicapped residents. The turnover rate for units in these facilities is very slow with only a few units becoming available during the coarse of a year. Both housing facilities have a waiting period of several months to a year. A recent count of applicants showed 48 for Great Hill Terrace.

The other type of assisted housing in Newmarket is Section 8 Existing Housing Vouchers. Administered by the New Hampshire Housing Finance Authority (NHHFA), this program provides rental subsidies to tenants in apartments which are currently part of the Town's housing stock. There are currently 55 people on the waiting list for Section 8 housing in Newmarket. However, some of these applicants are the same people on the waiting list at Great Hill Terrace.

In a number of ways, the Section 8 program is preferable to public housing developments. It makes use of the existing housing stock and thus does not require the provision of any additional services by the Town. Also, the Section 8 program does not "segregate" lower income households helping to strengthen the social fabric of the community.

While the quantity of available housing units in a town is important, the quality of that housing is equally important. Housing quality is determined by many conditions, among them age, size, availability of modern facilities and adequacy of maintenance. Unfortunately, the U.S. Census does not attempt to quantify housing deficiencies in any great detail. This is primarily due to the fact that a variety of standards exist as to what constitutes a substandard dwelling unit. However, two data items are enumerated (availability of plumbing and overcrowding) which are used to identify substandard housing.

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[1]Newmarket Community Development Block Grant Application, Small Cities Program, September 1970.

In terms of units lacking complete plumbing for exclusive use, the percentage of homes with this deficiency dropped from 2.0% in 1980 to .1% in 1990. Overcrowded housing (defined by the Census as having more than 1.01 persons per room) also declined. In 1980, 3.5% of the population lived in overcrowded housing units. By 1990, this figure had declined to 1.7%. Both of these areas indicate that, for the Town as a whole, housing conditions improved between 1980 and 1990.

Perhaps the best source of information regarding existing housing conditions is that which the Town is able to collect on its own through surveys, inspections and building permits. In this way the Town has direct access to the information and some degree of continuity can be achieved.

To a large degree Newmarket has done this. In 1979 the Town began participating in the Community Development Block Grant (CDBG) program operated by the U.S. Department of Housing and Urban Development and the N.H. Office of State Planning. One of the aspects of this program is designed to rehabilitate housing units for low and moderate income households.

Through the Newmarket Community Development Office established in 1980, "target areas" were delineated identifying the most needy households living in substandard housing units. Housing standards were judged using the HUD Section 8 Existing Housing Quality guidelines. Through the 1980 and 1981 housing rehabilitation programs approximately 122 housing units were assisted. This is estimated to be one-quarter to one-third of the Town's substandard housing units.

One area which has not been addressed is the "New Village Neighborhood". This area contains a large amount of substandard housing conditions including heating, plumbing, electrical and insulation deficiencies.[2] Previous CDBG applications have not been funded by the State for the New Village area. However, these housing deficiencies still exist and the Town, through the Community Development Corporation, should continue attempting to address this need.

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[2]1982 Housing Survey, Newmarket Community Development Office

Recommendations

1. The Newmarket Community Development Corporation should submit another Small Cities Community Development Block Grant application to the state to address the identified substandard housing conditions in "New Village".

2. The Planning Board should address in a comprehensive manner the definition and regulations of accessory use (dwelling) in the its revision of the zoning ordinance.

3. The Planning Board should examine flexible road standards for subdivsion roads.

4. The Planning Board should institute incentives for downtown business and housing owners to rehabilitate property and "improve the looks of downtown"

5. The Planning Board should address the high number of multi-family units in Newmarket.

CHAPTER VI. ECONOMIC DEVELOPMENT

In 1993 the town Council hired an economic consultant and appointed an Economic Development Advisory Committee to evaluate reasonable actions which the Town might take to promote economic development. The findings and recommendations of this endeavor are published in the **Town of Newmarket Planning and Economic Development Study** which was published in December 1993 and adopted by the Council in the Spring of 1994. This Study, its recommendations and findings, are hereby incorporated as the Economic Development Chapter of this Master Plan.

CHAPTER VII. TRANSPORTATION

Transportation infrastructure, perhaps more than any other single element, shapes the nature and location of growth in a community. As with most towns in the rapidly growing southern NH region, the ways in which Newmarket meets the challenge of providing transportation infrastructure and accommodating the transportation needs of the community will play a large role in defining Newmarket's quality of life. The purpose of this chapter is to address ways in which Newmarket can deal with these issues over the next several years.

An adequate transportation system is vital to any community's economic well-being and quality of life. Opinion polls in communities nation-wide consistently rate transportation system problems among those of greatest concern. While no one desires the inconvenience of an inadequate roadway system, many are concerned that transportation systems and options be planned and upgraded in a timely manner which is coordinated with sustainable growth The challenge of balancing the need for adequate transportation infrastructure with concerns about controlling the growth that excess roadway capacity can invite is one of the major issues in local planning today.

Cost is another major consideration in the provision and maintenance of adequate transportation infrastructure. True cost allocation for maintenance, improvements and additional services is a challenge for the local municipality. Decreases in available federal and state funding for infrastructure funding, and increasing competition for those funds will require creative solutions to meet the increasing transportation needs of the community. In addition, the town must strive to account for the total cost - capital and maintenance - of transportation facilities and services.

As transportation issues of access and mobility become increasingly regional, the Town will be called upon to analyze its needs in a broader sense. Newmarket, whose Main Street serves as a major north -south highway and which serves as major link in the COAST bus system, understands these implications. With the requirements of the Clean Air Act and the options presented by the Intermodal Surface Transportation Efficiency Act (ISTEA), Newmarket must increasingly view its transportation system as more than the local street system.

Finally, policy makers in the Town must understand the direct link between land use decisions and the transportation patterns which develop. In the end, transportation is not an end, but a means in a functional economic and social system. The Planing Board and the Town Council must consider the long term impacts of their decisions in light of overall impacts. With transportation now being the second highest cost behind housing for the typical American family, such considerations will become increasingly important to residents of the Town.

This chapter seeks to provide a conceptual blueprint and factual background for Newmarket to follow with regard to transportation policy making and planning. While current zoning ordinances, capital improvement programs, and subdivision and site review regulations will continue to provide the legal parameters with which to implement transportation policy and planning goals and objectives, this chapter will provide the basic information necessary to assist local officials in the establishment of local transportation policy and planning goals and objectives. Residents and policy makers should also seek assistance from the Seacoast Metropolitan Planning Organization (MPO) of which Newmarket is a part for further technical and policy analysis. Local regulations should be developed to be cohesive with MPO goals in order to maximize federal funding availability and regional efficiency.

The Newmarket Road Network

Road Classifications - Newmarket's roadway network serves both local and regional transportation needs. A map of Newmarket's existing roadway network, showing generalized classifications and ownership, is included in this document as a base map in reduced format. The full size map with all street names is available at the Town Hall. Pursuant to RSA 229.5, New Hampshire presently designates six classifications for all roadways in the state. As shown in Table 7-1, four of these six roadway classifications presently exist in Newmarket. Approximately 28 miles of this road network are town maintained. The remaining miles are state maintained highway or private roads.

TABLE 7-1
Roadway Classifications in Newmarket, NH

Class	I	3.03 miles
Class	II	6.50 miles
Class	III	0.00 miles
Class	IV	0.00 miles
Class	V	28.18 miles
Class	VI	2.42 miles

Source: NH Department of Transportation - January 1, 1993.

Newmarket's roadway network is oriented around NH Route 108 (Exeter Road). Crossing Newmarket north-south, this Class I trunk line highway connects Exeter and NH Routes 51 and 101 to the south with the town of Durham, US Route 4, the Spaulding Turnpike, and the city of Dover to the north, and the City of Portsmouth to the east. Via NH 108 north and southbound, these routes and communities are the principal destinations of most of Newmarket's weekday commuting traffic. NH 108 travels through Newmarket for a length of approximately 3 miles. This two lane road is winding and hilly along much of its course in Newmarket, with numerous sight restrictions and driveway accesses, few passing opportunities, and increasing traffic congestion.

In addition to NH 108, there is 6.5 miles of Class II, two lane, state maintained roadway in Newmarket. Four roads, NH 152, Packers Falls Road, Lee Hook Road, and a portion of Grant Road

from NH 152 to approximately Grapevine Hill constitute the Class II roads in Newmarket. NH 152 travels west from NH 108 in central Newmarket to Lee, Nottingham and Newmarket. Packers Falls Road travels north to Durham from NH 152 just west of the B&M railroad bridge and connects with NH 108 south of the Oyster River in Durham. All other public roadways in Newmarket are designated as either Class V or VI. These roads primarily serve as accesses to businesses and residences.

Traffic Volumes - Because Newmarket is centrally located in one of the most rapidly growing areas in the state or nation in the 1980's, the seacoast region of NH and because of very intense development in recent years, the town has experienced increasing volumes of local and through traffic, especially on NH 108. While the NHDOT does not have a permanent traffic recorder along NH 108 in Newmarket, counts have been performed on a regular basis by the Seacoast MPO as part of the regional traffic model development since 1980. These counts, as well as those taken by the NHDOT are available in full detail on an updated basis through the Strafford Regional Planning Commission in Dover. The Commission also maintains a directory of counts taken by private consultants.

Table 7-2 shows a summary of counts at several town locations over the recent past. Traffic growth increased rapidly in the mid 1980's and then stabilized or declined in the late 1980's- early 1990's. Projections for regional traffic growth assume an average growth rate in Vehicle Miles Travelled of 2.7% per year. This rate of growth will most likely be reflected locally in trouble spots. This may be reflected in high accident locations, intersection backups and high traffic volumes. Seasonal traffic variation in Newmarket is minimal as NH 108 and 152 are sub-regional connectors that primarily serve year-round commuters.

Table 7-2
Average Daily Volume for Selected Sites

Location 72337-	MPO ID#	198/9	1990/1	1992/3
NH 108 north of New Road	750	14,466	13,852	
Packers Falls Road @ TL	015		1,110	
NH 108 @ Newfields TL	005			16,552
NH 108 at Durham Town Line	056	10,088	9,989	
NH 152 btw Pack Falls & Grant	004	5,457	5,542	4,943
Ash Swamp Rd bt Grant & NH 152	003		1,423	
Grant Road	754	1,343	1,497	

The figures in Table 7-2 illustrate that there has been a general decrease in traffic along NH 108 between 1988 and 1993. This trend will not continue. Recent data on regional roads notes a return to increasing traffic volumes. Although a formal traffic volume study for a two lane road segment would be necessary to accurately determine the roadway's current overall level of service (LOS), it is safe to say that traffic volumes on NH 108 are approaching the roadway's theoretical capacity during peak hours. Several intersections in downtown and along the NH 108 corridor also operate at or near unsignalized capacity.

Ongoing analysis of NH 108 in Newmarket should be requested of NHDOT, as they are presently responsible for improvements along the road. Special attention should be given to improving shoulders and adding center lane left turn medians where appropriate as well as to adding right turn bays at critical intersections. Other traffic calming measures such as reduced speeds and visual barriers might also be useful. These improvements should be directed at improved improve safety, not necessarily increased flow through town. Newmarket should also work with NHDOT to see that appropriate speed limits are posted along NH 108 continue to provide an efficient inter-regional link between Exeter, Durham, and Dover, a goal which is challenged by the competing need for safety.

Several key intersections may warrant signalization in the near future. The intersections of NH 152 and NH 108 and South Main Street, Gerry Avenue and NH 108, NH 108 and Hersey Lane and NH 108 and Bay Road should have conditions monitored for future improvements. In addition to volume, warrants for signalization include accidents, pedestrian and bike activity, site design and vehicle composition. It should, however, be noted that any future signals at this location must be placed in such a way as to avoid causing vehicles to stop on the grades which are present at this intersection.

In many respects, Newmarket has become a bedroom community for the Portsmouth, Dover, Durham, and Exeter employment centers. A number of residents commute to work as far as Northern Massachusetts and the Boston area. Table 7-4 shows major work destinations and residences for Newmarket residents, from the 1990 census, are excerpted from the Seacoast MPO Long-Range Transportation Plan.

Parking and Circulation/Intra-town Travel Patterns

Parking and circulation problems currently abound in Newmarket as new development, increased traffic, inadequate off-street parking, and a narrow right of way created by on street parking on NH 108 hamper circulation and make parking very difficult and dangerous at times of peak activity. A high level of pedestrian activity also impacts downtown circulation and safety. Unfortunately, solutions to these problems will be costly.

In numerous meetings of the Newmarket Master Plan Committee, the issue of intra-town transportation - especially downtown traffic and pedestrian circulation- were brought up as major issues. The Master Plan Committee has suggested, echoing the work of the Economic Development Committee, that the

Town work immediately to deal with the issue of downtown parking facilities. Such facilities should be comprehensive answers to the long term needs of a revitalized downtown. The facilities should address the needs of pedestrians with full merit to the needs of the automobile. These facilities will be a critical factor in any downtown plans.

Because of dense existing development and the residential nature of the roads which parallel NH 108, little opportunity exists in Newmarket to create a one way traffic flow through downtown. Consequently, adding off-street parking and redesignating on-street parking for pedestrian/public use is the best, and perhaps only measure that could ease the congestion, parking, and circulation problems, and improve traffic flow along NH 108 in central Newmarket. As a first step, the Town

Table 7-3
Newmarket Journey to Work Data from Seacoast Trans Plan

should begin to locate new areas for parking and begin to restrict parking along NH 108/Main Street as soon as is feasible. As there is little, if any available land on which to locate additional parking facilities in downtown Newmarket, some land acquisition could be necessary. The existing municipal parking facility should be better signed and its link with downtown should be improved as part of a plan to enhance pedestrian movement and safety in Newmarket.

New residential and commercial development in Newmarket's downtown Mills should increase pedestrian traffic in the coming years. Ways to accommodate these people should be considered now. Such increased pedestrian activity would bring about increased business activity and spur new retail business development. This also would assist in the overall goals presented elsewhere in this document to make the downtown more vibrant and more tied into the waterfront and street businesses. Serious consideration should be given to the interruption of traffic flow along NH 108 to promote a safer environment for pedestrians and vehicular traffic. Pedestrian activated crossing signals should be considered.

Motor Vehicle Accidents

Between 198 and 199 , the total motor vehicle accidents in Newmarket increased by over 75%. This trend is shown in Table 7-4. Additionally, over this same period of time, ___two (or more) vehicle accidents (where location was reported at or near intersections or other critical locations, i.e. driveways and railroad crossings) occurred in Newmarket. The distribution of accidents is directly related to observed volumes.

Table 7-4

Total Accidents in Newmarket, NH 1983-1993

1983	50
1984	78
1985	108
1989	awaiting data from NHDOT Dept of Safety
1990	
1993	

Alternative Modes of Transportation

Transit - Currently, the automobile is the predominant mode of transportation in Newmarket. However, the town is well served by public mass transit service provided by the COAST (Cooperative Alliance For Seacoast Transportation) bus system. COAST buses travel between Newmarket and Durham. From Durham, Newmarket residents can travel to Portsmouth, Dover, and Rochester by transferring buses. COAST Route 5 makes 13 runs through town each weekday with reduced service

on weekends and when UNH is out of session. Future transit proposals may include a resumption of service to Newmarket or service along NH 101 to the Portsmouth vicinity.

Transit is a very valuable asset to Newmarket and should be supported by town residents. As development in and around Newmarket continues, COAST service and other private transit measures could play an important role in strategies to reduce traffic congestion in Newmarket and along NH 108. The Newmarket Highway Safety Committee feels that, when appropriate, the Planning Board should consider requiring new development to contribute bus shelters for use by COAST riders and Newmarket school children.

Special service transit is also available in Newmarket on a regular basis. Lamprey Health Care, a local organization that offers special service transit and paratransit, offers regular transportation service to elderly and disabled residents of Newmarket. Regular pick-up service and demand response transit are available to Newmarket residents through Lamprey Health Care. Lamprey also provides recreational outings for its patrons. Conversations with Lamprey officials indicated that this service is well utilized. This is another valuable transportation feature in Newmarket that should continue to receive support.

Rail Service

Once a major aspect of life in Newmarket, the railroad is poised for increased utilization in the near future. Passenger service has not been available in Newmarket since the late 1960's but, current plans call for a return of passenger service via AMTRAK in 1995. Full time stops will be located in Dover and Exeter with weekend stops in Durham. Current plans also call for full track replacement and improved rail crossings through Town. Planned service calls for an integrated bus/rail system with 10 roundtrips per day. The Council and Planning Board have expressed their support for this service. Guilford Transportation, owner of the rail line and rights of way currently uses the line for freight service. In 1994 an average of 4 trains passed through Newmarket each day.

In Newmarket, the train tracks parallel NH 108 on its eastern side through the southern part of town and cross NH 108 just south of New Road. These tracks also serve the Newmarket Industrial Park. In addition to the crossing near New Road, B & M tracks also cross Elm Street at grade. Two railroad bridges also exist in Newmarket and the Town also shares maintenance responsibility for one railroad bridge located near the Newmarket/Newfields border. The structures which are located in Newmarket are on NH 152, and on what is currently a private right of way, east of NH 108 and south of downtown. The bridge for which Newmarket shares maintenance responsibility with Newfields is located on New Road in Newfields. The NH 152 bridge was completely rebuilt in the Spring of 1994. Current passenger rail proposals provide for a full analysis of all rail overpasses and crossings. Funds gave been allocated for infrastructure repair to bring the line into standards for the planned passenger service.

Air Transportation - Air transportation facilities and regular commercial service is available at the Pease International Tradeport which is only 5 miles away. Additional public airports are located at Skyhaven Airport approximately 20 miles north in Rochester, and Hampton Airport, approximately 15 miles south in Hampton. The Skyhaven facility was upgraded in 1987 and now features a 4000 foot runway capable of accommodating small corporate/business-type jets. The Hampton facility features a 2000 foot grass runway and can accommodate small prop aircraft. The nearest airport with full commercial capability and regularly scheduled intercontinental flights is in Manchester NH, 45 miles to the west of Newmarket. Boston's Logan airport provides national and international service It is approximately 50 miles to the south of Newmarket.

Bicycle Transportation - Newmarket does not currently have bikeways or designated bicycle lanes. In order to enhance recreation opportunities and increase transportation alternatives in Newmarket, such facilities should be considered in future years. The Seacoast MPO is currently developing a regional bicycle plan which includes identified routes and improvements. The Town should promote implementation of this plan through CMAQ and Enhancements funding and through adoption of bicycle sensitive design standards in its subdivision and site plan regs. Upgrading existing facilities to include widened shoulders and bicycle lanes should also be considered when feasible. If linked with schools and public recreation areas, bike paths could also be of special benefit to the children of Newmarket. The new Recreation Center features bike paths linking school and recreational sources.

Additionally, long-term plans for a rails to trails conversion of the Rockingham Junction to Manchester line have been discussed. In any case the Planning Board and Council should acknowledge and promote the safe use of bicycles for recreation and transportation needs.

Pedestrian Movement and School Transportation

A study of pedestrian movement should also include an analysis of routes which children are currently using to get to schools. A number of Newmarket children who walk to school currently deal with inadequate or lacking sidewalks, poorly marked or unsignalized crosswalks and significant volumes of traffic along NH 152 and NH 108 on their daily journeys. This situation merits closer attention-especially during winter conditions when snow piles and icing make the conditions worse. Schools bus service expansion should be weighed against the safety and capital costs. The school board should work with those conducting an analysis of pedestrian movements and systems.

In 1993 the Town of Newmarket received Federal Highways Enhancements funding for the construction of sidewalks along NH 108. The town should continue to apply for flexible funds through the Seacoast MPO under the CMAQ and Enhancements programs.

Short Term Transportation Planning

Road Maintenance

Each year, one of the largest elements of the Town of Newmarket's municipal budget, excepting schools, is the roadway budget. Table 7-5, gives a summary of these budget expenditures for selected years. In general the roadway budget has accounted for 9 to 15 percent of Newmarket's total annual municipal budgets (excluding school expenditures). The same Table shows that while the roadway budget increased about ___ during this time period, the total municipal budget increased nearly %. During the same period, Newmarket's population increased by ___%. With inflation accounting for some of this roadway budget increase, it is apparent that the per capita expenditures for maintaining Newmarket's roadways have declined from a high of $44 in 1983 slightly over $___ in 19 .

Table 7-5

Municipal Expenditures on Roadways

Year	Total Budget	Maintenance	Population	Per Capita
1970	$	$	3361	$
1980	$	$	4290	$
1990	$556,898	$	7157	$77.81
1993	$	$	est.	$

Because the per capita roadway budget has remained declined in recent years while the overall budget has increased, it is quite apparent that roadway expenditures have not kept pace with total town expenditures. This is a trend that the Town cannot afford to continue. Deferring road maintenance is far more costly in the long term than effecting repairs as required. In 1986 the Town took first steps in dealing with this problem by contracting for and receiving an overall assessment of its roadways with Seacoast Engineering. This document (Seacoast Engineering Report), in conjunction with the current official state road inventory are hereby incorporated into this Master Plan with the exception of any policies or plans which have superseded it.

Although it should be a major priority of the Town of Newmarket to seek ways to lower the costs of maintenance and construction without sacrificing the overall quality of its roadways, road budget increases will be necessary to implement a roadway management plan based on this inventory. However, while construction costs are essentially fixed to the scope of any particular project, methods to lower average maintenance costs per lane mile of road. This subject will be discussed further in the Long Range Transportation Section later in the Chapter.

Although it should be a major priority of the Town of Newmarket to seek ways to lower the costs of maintenance and construction without sacrificing the overall quality of its roadways, road budget

increases will be necessary to implement a roadway management plan based on this inventory. However, while construction costs are essentially fixed to the scope of any particular project, methods to lower average maintenance costs per lane mile of road. This subject will be discussed further in the Long Range Transportation Section later in the Chapter.

In addition to finding ways to meet the burden of roadway construction and maintenance, it is important for Newmarket to carefully evaluate the cost effectiveness of accepting new roads into the town maintained network. Prior to accepting any new road Newmarket should determine (through physical inspection, and through the inspection of construction records) that the roadway in question has been built equal or superior to specifications outlined in town ordinances and regulations, and that it has been maintained in good condition. The objective in this case is to accept only roads which will require no more than plowing or grading for a reasonable period of years (a range which should be specified in the above mentioned ordinances). A further criterion for the acceptance of roads associated with new development is that the increase in taxes which is realized from the development be proportionately allocated to the roadway budget to compensate for increased mileage requiring maintenance.

Aside from normal maintenance, which includes shoulder grading, filling potholes, brush control, cleaning ditches, and supervising construction in the summer, and snow removal, and sanding and salting in the winter, a number of larger projects requiring significant reconstruction are currently needed in Newmarket. These projects were identified in the Seacoast Engineering report and by Town officials in Newmarket's current Capital Improvements Program. This program is currently being updated.

The Public Works Department published a roadway improvement plan in February 1994 entitled **The Town of Newmarket Five Year Road Plan**. The plan details construction projects completed from 1989 to present and proposes a five year improvement program. The plan shows construction costs for each of the years and includes color coded road network maps delineating the proposals. This document will be a direct input to the Capital Improvements Program.

Design Standards -

As a legitimate exercise of police power, in order to protect public health, safety, and welfare and ensure continuity in the local roadway network, certain minimum roadway design standards should be required by Newmarket. Standards for access to roads and highways, minimum setbacks and easements, conformance with existing roadway alignments, adequate signing, and roadway construction should be addressed in Town zoning ordinances and subdivision regulations. Bonding to ensure that roads and associated improvements proposed in new subdivisions be completed within a reasonable period of time from the granting of final approval should also be included in current and future zoning ordinances and subdivision regulations.

In New Hampshire RSA 236:13-1, it is stated that "it shall be unlawful to construct, or alter in any way that substantially affects the size or grade of any driveway, entrance, exit, or approach within the limits of the right of way of any Class I, Class III highway or the state-maintained portion of a Class II highway that does not conform to the terms and specifications of a written permit issued by the Commissioner of Transportation. Section V of this RSA provides that Planning Boards of cities and towns which have granted the power to regulate subdivisions of land as provided in RSA 674:35 share this same right of permitting and may adopt such regulations as are necessary to implement the standards for approval which are adopted.

Another design standard which should be addressed in the Town's regulations is the requirement of minimum easements, setbacks, and right of ways for all new construction. These requirements serve several purposes and produce sometimes conflicting results. First, this kind of dedication allows a town sufficient room to maintain and, when necessary, improve roadways. Second, adequate setbacks help to mitigate potential obstructions to roadway sight distance such as fences, buildings, and parking lots. Unfortunately, large setbacks and rights of way can also lead to sprawl and low density development which may produce long term adverse transportation effects and higher infrastructure costs.

In order for Newmarket's roadway network to develop in a rational and coordinated manner, conformance with, and integration of, new roads with existing roads should be required as a condition of subdivision approval. The Planning Board should consider modifying site plans to ensure this coordination when feasible and appropriate. Additionally, new roads, which could potentially serve as through roads at some future date, should be planned to their ultimate conclusion. In contrast with the creation of an official Town map, this exercise would address the issue of new or future roads on a case by case basis whenever new roads are proposed. In order to encourage logical regional and sub-regional transportation development, new roads should also be planned to coordinate with roadways located in abutting jurisdictions whenever possible. These measures will help to encourage orderly and timely roadway development. Adequate signing of roadways, that is at every juncture with another road, public or private, or significant public way (such as recreational roads), should also be required on any new road.

It is also important for Newmarket to revise and enforce its minimum standards for new roadway construction. Poorly built roads create unwanted and expensive problems for area residents and town officials alike. Requiring minimum standards be met as a condition of the issuance of occupancy permits is a potential way to ensure adequate roadway construction in new developments. Adequate drainage potential should also be demonstrated and required of new or reconstructed roads.

A further method for ensuring that proper roadways are built in a new development is to require that the developer post a bond, at the time of subdivision approval, to cover the full cost of building new roads. This bonding requirement will allow the town to complete all work planned, even if the

developer is unable to complete the project. When possible, the town should conduct site inspections of new roadway construction to further ensure compliance with town standards.

Newmarket will be updating its Zoning, Subdivision and Site Plan Ordinances in 1994. These updates will ensure that the preceding issues are addressed in a comprehensive manner. The Board, Council, Public Works Department and the residents of Newmarket should be actively involved in this process.

Scenic Roads -

One of the best ways for a Town to preserve its rural character and protect its visual attributes is through the designation of scenic roads. Chapter 231.157 of the New Hampshire RSAs provides for such designations. The designation process is very straightforward. According to this statute, "Upon petition of ten persons who are either voters of the town or who own land which abuts a road mentioned in the petition (even though not voters of the town), the voters of such town at any annual or special meeting may designate such road as a scenic road." This section goes on to specify the proper notice procedure which is required by this statute. If approved by a majority of voters, the road named in the petition receives scenic designation. This designation can be rescinded in a similar manner.

The consequences of a scenic designation are defined in RSA Chapter 231.158. Once a roadway is designated as scenic, the cutting or removal of medium and large-sized trees (defined in the statute as being any woody plant which has a circumference of 15 inches or more at a point four (4) from the ground), or the tearing down or destruction of stone walls or portions thereof without the prior written consent of the Planning Board or any other official municipal body designated at the town meeting to implement the law (after a public hearing has been held), is not permitted for any repair, maintenance, reconstruction, or paving work performed on the roadway. It should be noted that these restrictions can, in some cases, create an extra hurdle for town officials wishing to initiate safety improvements along roadways with scenic designations; improvements must be publicly discussed and approved by the appropriate political body.

Exceptions to this rule include the road agent's right to "remove portions of trees, shrubs, vegetation, and other natural or man-made obstructions from within three feet of the main traveled portion of such road which interfere with the safe travel upon such road." The road agent is also empowered to cut and remove trees with the written consent of the Selectmen and without hearing in emergency situations.

Scenic road designation does not, however, alter or affect the eligibility of the town to receive construction, maintenance, or reconstruction aid, pursuant to the provisions of RSA 235 for such road. Additionally, scenic road designation does not affect in any way the rights of any landowner with respect to work on his or her own property. This clause negates the confiscatory potential which this law might otherwise have.

Currently Bay Road is the only designated scenic road in Newmarket.

Long-Term Transportation Planning

In addition to the need to address the short term transportation planning issues discussed in the previous section, long-term transportation planning policies with regard to new development and road surface management should also be established by Newmarket. New development is often phased over extended periods of time and the ultimate, as well as the immediate impacts of development on traffic volumes and transportation systems should always be considered. The benefits of establishing a long-term pavement management system should also be recognized by Newmarket officials. The old adage which states that "an ounce of prevention is worth a pound of cure" is particularly appropriate when evaluating long-range impacts associated with new development and the need for long-term road surface management strategies.

New Development -
The magnitude of new development obviously determines the traffic impacts that the development will have. Depending on existing roadway traffic volume, distribution patterns, and the physical condition of local roadways, small scale as well as large-scale development can often have significant impacts on the surrounding roadway network. By requiring transportation/traffic impact studies for new developments of a certain size or for developments which are located in areas where significant transportation problems are known to exist, a Planning Board can effectively evaluate the scope of impacts associated with any new development. Through this kind of scrutiny, recommendations for project phasing, and developer participation in necessary improvements can be developed and problems of safety, congestion, and expensive upgrading of poorly planned roads can be avoided.

As federal and state assistance for local road construction has decreased (in most cases), in recent years, and will likely continue to decrease in future years, the construction, improvement, and maintenance of local roads has increasingly become the responsibility of municipalities and developers. That a developer accepts the responsibility for performing all necessary "on-site" infrastructure improvements is now considered standard practice and regulations supporting this standard have generally been supported by courts nationwide as a legitimate exercise of police powers which are granted by the U.S. Constitution.

However, the extent to which a developer can and should be required to participate in off-site roadway system improvements has become a hotly debated subject in recent years. The two basic methods for securing developer participation in roadway and other infrastructure improvements necessitated by new development are through negotiated development agreements and through the assessment of formula based development impact fees. Each of these alternatives will be briefly discussed below.

The most straightforward way to have developers contribute to off-site improvements necessitated by a new development is through a negotiated development agreement. The method of operation in securing this kind of participation is implicit in the terminology. That is, a Planning Board or other responsible public body with proper authority meets with a developer and negotiates for improvements which are needed or desired by the community. Successful negotiation can obviously benefit the municipality whose needs are met, but the developer usually receives benefits as well.

Concessions which municipalities frequently offer developers in exchange for off-site improvements are density bonuses and streamlined regulatory actions. In addition to these "perks", it is always in a developer's best self-interest to make sure that a project be well served by adequate infrastructure and amenities, as these enhance property values and increase the odds of acceptance for any future projects that the same developer might propose. Although a community cannot deny a development solely on the basis of a developer's refusal to negotiate (a demonstrated lack of adequate services or infrastructure, and the absence of any plan to provide such must also exist), good working relationships and cooperation with public officials and citizens will usually prove beneficial to a developer attempting to expedite his or her project. Negotiated developer participation is usually more appropriate and effective in communities where large or medium-sized developments occasionally occur and the need for major improvements is random rather than continual.

While this form of municipal bargaining is conceptually straightforward, three ingredients are necessary to facilitate a rational and mutually beneficial negotiation process. First, the developer must be cooperative and willing to participate openly. Second, an impact analysis which pinpoints and describes potential impacts associated with various aspects (in this case transportation) of the development must be produced. These documents are usually provided by the developer since the burden of proof with regard to impacts is generally his or hers. Third, the municipality must have in place an adequate Capital Improvements Program and Master Plan on which to base requests for required improvements and developer participation.

The other broad category of methods for gaining monetary concessions from developers for off-site improvements is what are termed impact fees or exactions. Basically stated, impact fees are assessed on new development based on a formula which is calculated to reflect costs to a community which will arise as a result of new development. These formulas attempt to quantitatively link the community-w-ide impacts associated with new development to the marginal costs of providing additional services or infrastructure. These formulas again rely on goals, objectives, and plans for timely development which are expressly stated in Capital Improvements Programs and Master Plans to justify their legitimacy.

However, unlike negotiated agreements, impact fees are theoretically assessed consistently on developments as a condition of approval or prior to the issuance of certain permits (building or occupancy, for instance). Systematic formula-based impact fees are usually imposed in larger, rapidly growing areas, but can be appropriate in smaller areas which encounter consistent growth rates in

excess of their ability to financially cope with increased demands for infrastructure and service improvements. Recent development history in Newmarket suggests that an impact fee system could be quite appropriate.

The practice of assessing standardize impact fees has been challenged by many developers nationwide in recent years. The argument which is most often raised is that these fees represent an unfair and unauthorized tax. Absent any state-level enabling legislation specifically authorizing communities to levy such fees, many of these challenges have been upheld. Although impact fee enabling legislation has been proposed in New Hampshire, it has yet to receive approval of the State Legislature. Precedent does, however, exist in New Hampshire for the imposition of off-site improvement fees in certain cases, as a justifiable exercise of local police powers.

It was held by the New Hampshire State Supreme Court, in the case of Land/Vest Properties v.s. the Town of Plainfield, that a municipality can require a developer to bear "that portion of the cost (of necessary off-site improvements) that bears a rational nexus to the needs created by, and special benefits conferred upon, the subdivision." Rational nexus can be described as the justifiable relationship between existing needs from improvements without a development and those which can be attributed solely to the development. Because the Town of Plainfield did not assess a fee based solely on the need created by the Land/Vest project the court held for the developer. In this case it was held that the portion of improvements (in this case roadway improvements) which the developer could be required to pay would have to be determined through analysis based upon findings of fact regarding current road use and maintenance needs and costs, and theoretical traffic increases attributed to the development. It was also held that to attempt to make a developer pay for all of the costs of the improvements, which also would benefit other area users, was inequitable.

The concepts which are discussed in the above paragraphs are important for the Town of Newmarket to keep in mind when evaluating the impacts of new development. Arbitrary local decisions regarding a developer's use of his or her land, and arbitrary, mandatory monetary requirements as a condition of approval are not generally judged favorably in courts of law. All decisions about the extent to which developers should "pay their own way" with regard to off-site improvements necessitated by new development, be it with roads or any other form of infrastructure or service, must always be based on the existence of adopted plans and programs which address such issues as well as a complete and realistic evaluation of all potential impacts associated with the development.

Nonetheless, negotiated agreements and impact fees can be useful tools for mitigating potential roadway problems prior to their occurrence and for enhancing overall planning strategies. The Newmarket Planning Board should recognize its right to establish a system for requesting or requiring developer sponsored off-site improvements. However, any application of these potentially powerful planning tools should be carefully considered. Improperly applied, these techniques can cost a town a great deal more than it could have gained in desired improvements.

Road Surface Management -

As well as being a short-term concern, road surface management should also be viewed as a long-term transportation planning priority. As mentioned in the previous sub-section on road maintenance, Newmarket should establish a comprehensive road surface management program. This kind of program is designed to evaluate the physical condition of local roadways and provide a basis for establishing comprehensive on-going maintenance strategies for the effective life of each and every local roadway. This approach differs from traditional maintenance approaches which address only major maintenance requirements in an expanded time frame. Adopting this kind of program could significantly lower Newmarket's annual roadway maintenance costs over an extended horizon and will compliment efforts to assess and evaluate impacts associated with development. Capital Improvement Programming efforts are also aided through the establishment of a road surface management program.

A road surface management system would build upon the Town's current road inventory with annual condition updates. These updates would be based on drive-by surveys. Software is available through the Regional Planning Commission and the DOT to assist in translating the inventories automatically into improvement programs with associated costs. In the end, the cost of routine maintenance would be a significant savings over reconstruction and patchwork fixes.

Unfortunately, it is often normal maintenance on good roads that is deferred in favor of dealing with roads in need of serious rehabilitation and reconstruction. Also unfortunate is the fact that roads in poor condition are not as cost-effective to maintain as those which are in good condition. This scenario ultimately leads to a never ending cycle of playing "catch up" with road maintenance needs. In other words, roads which are initially in good condition often lapse into marginal or poor condition as maintenance is continually deferred in favor of working on crisis condition roads, the majority of which cannot be thoroughly addressed in any particular year with a typical annual budget.

Recommendations

1. The planning board should encourage logical, limited and coordinated access onto NH 108 and NH 152. Safety, and transport effects will be considered in all development applications and approvals.

2. Newmarket officials should work proactively with State officials in specifically addressing design and safety issues along NH 108.

3. Newmarket should continue to support the Cooperative Alliance for Seacoast Transportation (COAST) and paratransit providers in their efforts to provide residents Newmarket with regularly scheduled and demand responsive transit options. Special consideration should be given to the needs of the elderly and mobility-impaired.

4. In an effort to address downtown circulation and access, Newmarket should work to develop a comprehensive, multimodal solution to the transportation needs of the downtown. The Planning board and Council should work to develop a comprehensive approach which would address the needs of the area in terms of promoting the redevelopment of business and public attractions.

5. Newmarket officials should systematically monitor locations with a high number of motor vehicle accidents or areas which prove unsafe to motorists, bicyclists, and pedestrians, and assess needed improvements as required. If appropriate, these needed improvements could then be included as safety improvements in the Town's Capital Improvements Program.

6. Newmarket should promote the development of regional and local bicycle and pedestrian pathways. These pathways and related improvements would enhance the vitality of Newmarket's residential and commercial areas and assist in reducing vehicle congestion in the Town.

7. Newmarket should continue to include all roadway construction and maintenance projects, both immediate and anticipated, and with a cost estimate, in subsequent Capital Improvements Programs developed by the Town. Long-term costs should be considered in all projects.

8. Newmarket should periodically review and revise, if necessary, standards for the issuance of driveway permits on local roads to ensure that they are at least equivalent to those contained in New Hampshire RSA 236: 13-I.

9. Newmarket should continue to require setback standards, easements and right of ways whcih are based design standards which take into account density, traffic generation, safety, future infrastructure needs and aesthetics.

10. The planning board should continue to require that all roads which are sited in new developments be laid out consistent with the existing roadway and sidewalk network as a condition of subdivision approval.

11. The planning board should require, as a condition of subdivision approval, that all new roads be adequately signed and marked.

12. In addition to including major roadway improvements in town reports and subsequent Capital Improvements Programs as suggested in recommendation ten, Newmarket officials should continue efforts to establish a comprehensive road surface management program applicable to roadways of all conditions as outlined in this section.

CHAPTER VIII COMMUNITY FACILITIES

Town Hall and Administrative Facilities

Since the last Master Plan update in 1988, Newmarket's form of government underwent a drastic change. A Charter adopted by the Town in 1991 established a seven member town council form government in lieu of a five member board of selectmen. The Charter also established a Town Administrator position to act as the Chief Executive Office.

Town offices are housed in the old St. Mary's school building, where they have been located since 1987, when the original Town Hall was destroyed by a fire. In 1991, the Town purchased the school. In 1993, major renovations to the facility were completed. These have allowed the town administrator's office, finance, town clerk, code enforcement and planning, and the town council chambers to be located all on one floor. An elevator was also added, providing access to all floors. The renovations have made the Town Hall compliant with Americans With Disabilities Act regulations.

According to the Town Administrator, there are several items that still need to be addressed to complete the upgrade of Town Hall. The basement floor of the building needs refurbishments such as new flooring, a paint job and new lighting to maximize its utility to the community. The Town Administrator also feels the Town should explore acquiring property that abuts Town Hall to provide additional parking facilities. Besides those changes the Town Hall is sufficiently meeting Town needs. In June of 1994, the Recreation Department will be moving to a new location, which will leave the third floor empty and available for any future office needs.

Recreation Department

Newmarket's Recreation Department offers over a 130 recreational programs throughout the year for all age groups, from pre-school children to senior citizens. The department is staffed by a full time director, assistant director and a part time secretary. The department also employs 40 instructors for various programs on a part time basis, as well as 28 full time summer staff. The department is currently housed on the third floor of Newmarket Town Offices, however on June 1, 1994 it will be moving into a brand new Community Center that is currently under construction.

Examples of the activities and programs administered by the department include summer camps for children and teens, arts and crafts programs, sports instructions, aerobics, dog obedience, family trips to a variety of locations, and holiday and other special events. The Recreation Department is also responsible for scheduling community athletic league games and organizational outings at Newmarket

playing fields and parks. The outdoor areas the department utilizes for its programs are identified in Chapter I, Table 1.2, "Open Spaces and Recreational Opportunities in Newmarket".

The new Community Center, which is located on Terrace Drive, adjacent to the Leo Landrock Memorial Field will provide space for indoor activities and programs. It is designed as a multi-purpose facility and will contain office space, meeting rooms of various sizes, a games room and a gymnasium. Along with providing space for numerous Recreation Department programs and activities, the Community Center will also house organizations such as Community Action Program, Head Start, Meals on Wheels, Fuel Assistance Program, USDA Food Programs, and Boy and Girl Scouts. It will also provide meeting space for community organizations and meetings.

In recent years the Recreation Department has experienced expanding participation in its programs. The Community Center was designed to address this demand, and will allow for even more programs as well as provide better space for existing programs. Newmarket parks and playing fields have generally been scheduled to capacity. The Recreation Department will be working with the Department of Public Works in the next year or two to develop a playing field at a site in Durell Woods, that will relief some of the demand on existing fields and aide in scheduling conflicts. Currently, the Recreation Director, Town Administrator and Department of Public Works Director are beginning work on a long term plan for future improvements and expansion to outdoor recreation sites. These will be designed to ensure community demands will be met. These improvements are still very much in the planning stage, and are not yet specific enough to be included in this Master Plan.

Library

Newmarket's library facility was donated to the Town of Newmarket in 1852 by the Newmarket Manufacturing Company. It is located at the intersection of Main and Elm Streets. The library is currently staffed by the library director full time, a library assistant part time and a part time library aide. The library has about 22,000 books. Along with provision of basic library services, the Newmarket library provides children services, such as story hour.

A major renovation was completed at the beginning of 1994, which doubled the size of the library. Until this point, library services have been suffering from severe space needs. Through the renovations the reference department was given its own room, adult stack space was drastically expanded, a new childrens room and meeting room were created. This expansion is designed to serve Newmarket's population for at least twenty years into the future.

The library director has identified two improvements that should be made to library services. The first of these is complete automation of library system. This includes computerized registration, automated check out with bar codes on each book, on line catalogs, and a computer terminal to allow patrons access to New Hampshire Automated Information Systems, an state-wide interlibrary loan system.

Automated library services would allow a much more efficient use of resources than current methods, and provide Newmarket residents access to many more resources.

A second need the library director has identified is additional staff time. Currently, there is often only one staff person at the library at a time, which limits patron assistance and is potentially a problem if any sort of emergency arises. It is standard practice at nearly all libraries to have at least two staff people on during all open hours.

Table 8.1 shows the total circulation of library materials by category from 1988 to 1992.

TABLE 8.1 **CIRCULATION OF LIBRARY MATERIALS**
1988-1992

	1988	1989	1990	1991	1992
Adult	9,245	9,834	11,630	12,600	11,131
Juvenile	8,973	8,780	10,585	10,799	12,958
Audio and Video	118	127	496	1,230	2,318

Source: Newmarket Annual Town Reports

School

The Newmarket School Administrative Unit (SAU #31) has two facilities, a five hundred pupil Elementary School and a 600 Junior-Senior High School, which houses the Superintendents office. There are about 130 employees, including teachers and administration. Besides providing education for the children and young adults of Newmarket, the school system provides special programs for children and parents, shares its facilities with Nemarket Day Care for before and after school care, and provides space for other organizations such as Boy and Girl Scouts.

The Elementary School is six years old and in excellent condition. The Junior-Senior High was built in three stages over 40 years, with approximately a third of it recently having been recently remodeled and expanded. The rest of the building is in poor to fair condition.

According to the Superindent and the Newmarket School Board, the The Newmarket School District has a serious space needs problem. Classrooms and science labs are crowded, and lunch rooms, libraries, music and drama facilties are inadequate. Currently, due to a lack of space, one fifth grade class is held in a modular unit and a preschool program is held at Great Hill Terrace of Newmarket Housing Authority. Recreational facilities such as gymanasium, ballfields and playgrounds are also overburdened.

Another issue faced by the school board is busing expenses. The School Board feels it is important to establish walking routes to the school. This would allow the elimination of bus routes and ensure the safety of the students. Two areas where routes could be eliminated if sidewalks were built are in the vicinity of Bennet Way and Durell Woods. The School Board and Town will need to coordinate to address this issue.

The Newmarket School Board has recently activated the Newmarket School Study Committee. The purpose of the committee is to study the ongoing space needs of the school and propose potential solutions. According to the school board, it currently appears logical to have an addition on to the Jr. High/High School. The school board also feels that communication with the planning board in relation to the development of multi-family housing in Newmarket and its impact on school costs is important.

The School Superintendent has devised a schedule of necessary improvements to both school facilities. These include items such as replacing furniture, carpets, windows, paint, update air handling systems. These have been implemented to extent that funds allow.

Table 8.2 contains Newmarket school enrollment figures from 1987 to 1993. These show a steady increase over that time.

TABLE 8.2 **NEWMARKET SCHOOL ENROLLMENT**
1987-1993

	1987	1988	1989	1990	1991	1992	1993
Pre-School Readiness		15	33	30	35	38	39
Grade 1	69	106	100	103	125	132	103
Grade 2	74	85	88	93	87	120	102
Grade 3	72	69	80	80	90	82	110
Grade 4	64	74	72	91	96	88	88
Grade 5	67	59	78	71	89	93	87
Elementary Total	**346**	**393**	**418**	**438**	**487**	**515**	**490**
Grade 6	59	72	59	85	71	95	100
Grade 7	43	60	82	57	81	79	92
Grade 8	61	51	59	73	57	79	79
Junior High Total	**163**	**183**	**200**	**215**	**209**	**253**	**271**
Grade 9	48	66	55	63	76	55	71
Grade 10	46	43	53	48	57	66	54
Grade 11	49	44	39	56	45	55	62
Grade 12	50	45	33	33	53	50	51
Senior High Total	**193**	**198**	**180**	**200**	**231**	**226**	**238**
Grand Total	702	774	798	853	927	994	999

Source: Superintendent's Office

Police Department

The Newmarket Police Department is staffed by 11 full-time and five part-time staff mainly patrol offices. The Police Department is currently located in office space at the Town's Water Treatment Plant on Packers Falls Road.

According to the police chief, the current site of the police department is not suitable, it is to small and not designed for police use. A new location for the department is in the planning stages and a site has been recently purchased. It is located at the intersection of NH Route 108 and Terrace Drive, which is also where the Newmarket Housing Authority is located. The Town is presently receiving proposals for architectural services for the design of the building.

The police chief also sees the need for a new computer system for the entire department to enhance efficiency of the records system and daily police operations. Currently there is only one PC for use at the entire department. According to the chief, the department needs a minimum of five work stations.

Table 8.3 contains police action data from 1987 to 1992.

TABLE 8.3 **NEWMARKET POLICE STATISTICS**
1987-1992

	1987	1988	1989	1990	1991	1992
Criminal Actions	550	965	804	804	947	950
Motor Vehicle Actions	1,242	1,710	1,307	1,104	1,286	1,411

Source: Annual Town Report

Fire Department

The Newmarket Fire Department was chartered in 1834. It has been located in its current facility, at the intersection of South and Main Street, since 1947. The Fire Department is staffed by about 36 volunteer firefighters, including the Chief. It has three fire engines, and a forestry unit. The oldest engine is being replaced in October of 1994. The other engines are scheduled for ongoing replacement through the Capital Improvement Program. Over the last two years, all fire gear has been replaced and the Fire Department has also acquired 15 new self contained breathing units.

The Fire Chief feels there are several items that need to be addressed regarding the adequacy of fire fighting services. The building where the department is currently housed is an old school building and is far too small to adequately serve the needs of the fire department, particularly in regard to vehicle storage. The Fire Chief prefers that a new location be close to where it is currently located. Its central spot can quickly serve the high risk downtown area. The Fire Chief believes the Department could expand into the building next door.

The Fire Chief also feels that the Fire Department will eventually need to become non-volunteer. Presently only four or five personnel are available for a fire call. The Fire Chief feels that the department would require four full time fire fighters and a chief. Two of the fire fighters would also be EMTS.

Ambulance Corps

The Newmarket Ambulance Corps provides emergency medical service to both Newmarket and Newfields. There are twenty volunteer emergency medical personnel. The Corps is housed in a two bay garage with an attached meeting room, supply room and office. The Corps has two ambulances, a 1976 Ford Modulance and a 1986 Ford Wheel Coach.

According to the Ambulance Corps President, the facilities and equipment are in good condition, and with on-going general maintenance should be adequate to meet town needs into the future. The ambulances will have to be replaced on a scheduled basis and included in the capital improvement program.

Public Works: Building and Ground Division

The Building and Grounds Division is responsible for building maintenance of 12 municipal buildings, from the town hall to the cemetery building. It is also responsible for grounds maintenance for all parks and ballfields. The buildings range in age from 90-100 year old Town Hall to the Community Center that is currently under construction.

There are four full time groundskeepers including the supervisor and 1 part time seasonal groundskeepers and part time janitor. The major pieces of equipment used by the buildings and grounds division are mowers, which range in age from 1 to 5 years, and a one ton rack truck that is 10 years old.

The Department of Public Works Director, along with the Recreation Director has cited the need for more playing field space within the Town, and will be working to convert land in Durell Woods to a usable field. The DPW Director would also sees the need for the development of a scheduled maintenance plan for each building and field so that repairs and necessary renovations can be made on a timely basis.

Public Works: Vehicle Maintenance

The vehicle maintenance division provides maintenance and repairs for all municipal vehicles and provides fuel storage and distribution. There is one mechanic employed by this division. It is located on Route 152.

The division has outgrown its indoor garage space for heated storage and security of vehicles. The DPW Director sees the need for an expansion or relocation to put the major pieces of equipment indoors. The building currently utilized has three garage bays. The DPW director maintains that a three to four bay addition. According to the DPW Director, it is also difficult that the highway garage located out from the center of town, so any expansion or relocation efforts should consider relocation of the facility towards the center of town. The director would like to see this relocation occur in 1999.

Public Works: Highway Division

The Highway Division is responsible for maintaining 28 miles of town roads an 5 miles of sidewalks. There are currently five employees in this division - one highway foreman, 1 equipment operator, and three truck driver/laborer. The Highway Division utilizes numerous vehicles and equipment for its operations.

The division has a Five Year Road plan for resurfacing and minor road construction projects, and a Public Works Capital Reserve Program for the ongoing replacement of vehicles. These ensure the department's ability to adequately perform its services.

The DPW director cites the need for several improvements to the Highway Division Facilities. The existing salt storage shed is too small. It has a capacity of 60-70 tons. The town needs a shed that can hold 150-200 tons. Also, the salt/sand mixture is in uncovered storage, resulting in run-off. A covered facility is needed to store this appropriately.

Public Works: Sewer Division

The Newmarket Sewer Division is located off New Road on the Lamprey River. The sewer division provides for the collection and treatment of wastewater through gravity sewers, pump stations, force mains and the wastewater treatment facility. The collection system is around 100 years old, but has had a number of upgrades and extensions over the last twenty years. This includes a new secondary treatment facility built in 1985. There are five part time employees in the Sewer division, including facility mechanic, facility operator, system technician, and lab technician.

The sewered areas in Newmarket coincide fairly closely wit existing development. The town center is almost completely serviced by sewer. As of the 1990 federal census, 79% of Newmarket households were serviced by Sewer. According to an "Planning and Economic Development Study", a report by Northern Economic Planners completed in December of 1993, the Town of Newmarket has enough wastewater treatment capacity to add additional users into the future, if infiltration problems are corrected.

The DPW Director has identified several deficiencies within the current system that need to be addressed. They are as follows:

- The Creighton Street pump station and grit facility needs to be upgraded.
- Salmon Street pump station needs to be upgraded.
- Exeter Road Sewer needs to be upgraded.

The deficiencies cited by the DPW director are related to the infiltration problems mentioned above that are limiting the capacity of the sewer system to expand. The report by Northern Economic Planners recommends further evaluation and correction of these problems, in order to enable future sewer expansions to assist in Town economic development efforts.

Several other issues will need to be addressed. Within a year or two the State of New Hampshire will require a toxicity study. Also, due to the closure of the Ash Swamp Landfill, sludge disposal will present a new burden and expense of the sewer division.

Public Works: Water Division

The Water Division is responsible for the treatment and distribution of the town's drinking water. The system was originally built about 100 years ago, but has had expansion and upgrades to the present. This includes a new treatment plant that was built in 1990. According to the 1990 federal census, 85% of the town is on public water. The water system is sufficient to cover foreseeable demand well into the future. Specifics of Newmarket's water system are covered in Chapter II of this Master Plan, entitled Water Resources.

The DPW director has identified several deficiencies in the water system that need to be addressed.

- The distribution system that needs to be updated, particularly through the downtown area to the Durham side.
- The Bennet and Sewall Well need to be cleaned.
- Standby power is needed at both the Bennet and Sewall wells.
- The Booster Station pump needs to be upgraded.
- Approximately, 60 to 80 of the 200 hydrants in the system need to be replaced.

Public Works: Solid Waste Division

The Solid Waste Division is responsible for curbside municipal rubbish collection and disposal. Currently, the Town of Newarket, along with 13 other towns disposes of solid waste to the Lamprey Co-op Incinerator in Durham. The Town utilizes a transfer station on Ash Swamp Road.

In 1992 the Town of Newmarket completed the long process of finalizing a contract for the closure of the old landfill on Ash Swamp Road, which was contaminated with hazardous waste. The estimated closure date is in 1995, subject to NHDES approval.

Newmarket is in the process of preparing for the closure of the Lamprey incinerator in 1995. Also closing is the Somersworth landfill, where the ash from the incinerator is currently disposed. The Town will need to find another disposal site. At the time of this Master Plan, no definitive solution to the Lamprey closure has been found. Currently, the Newmarket Town Council is discussing a pay-per-bag waste disposal program and a curbside recycling program. This would serve to reduce solid waste costs for the Town.

Also, according to the DPW director, the transfer station does not currently meet state standards for a permitted facility. This will be a new requirement upon relocation of the transfer station in conjunction with the landfill closure.

CHAPTER IX Historic Resources

Introduction

One of Newmarket's most valuable attributes is its historic character. The Town is filled with historic landmarks representing past rural and industrial eras. These landmarks include not only historic residences, stores, mills and schools, but also old roadways, farmscapes, graveyards and stone walls. This remaining tangible evidence of Newmarket's past character and early appearance contributes greatly to the town's current character and composition.

The identification and preservation of Newmarket's historic landmarks and character is an important goal. It is also an important consideration in evaluating and shaping community development, especially in terms of planning and development proposals. The preservation of noteworthy architectural and significant historical resources in Newmarket's rich past keep the town's heritage in clear view when conflicting or opportunistic development proposals are brought before the town. To encourage the continued preservation and viability of Newmarket's significant historic structures, the town will have to allow for renovation and profitable activity to take place within.

This chapter is not intended to be a complete inventory of all historic resources in the Town of Newmarket. It is likely that several important buildings and sites have been overlooked. What this chapter will hopefully accomplish is an accurate overview of Newmarket's heritage, exemplified by numerous sites and structures that remain today. For those interested in a more specific historic account of Newmarket, the following references are identified:

Lamprey River Village, the Early Years by Sylvia Fitts Getchell. The history of the early settlement along the Lamprey River.

Old Newmarket by Nellie Palmer George, c 1932. The history of early Newmarket.

"**Newmarket Revisited: Looking at the Era of Industrial Growth (1820-1920)**", by Richard Candace. The article traces the period of rapid expansion in Newmarket when the Town was dominated by the Newmarket Manufacturing Company. The article was published as part of the NHCH-funded "Newmarket Revisited" project.

Mills and Mansion by John Coolidge and Mill Towns, 1978, by Stephen Dunwell. Both books broaden the historical perspective on mill town development.

The Tide Turns on the Lamprey...a History of Newmarket, by S.F. Getchell, 1984.

History of Newfields, NH, 1638-1911 by James Hill Fitts, 1912.

Historic Overview

The settlement of Newmarket (Lamprey River Village) began in the early 17th century with settlers from Dover moving south, and those of Exeter moving north. By 1657 the boundary between the two older towns was settled on the Lamprey River and Goddard's Creek. So the oldest section of Lubberland (Doe's Neck) was always within our bounds. Martin's Lane meandered down the Neck to the John Martin home (later the Doe Garrison) built before 1664. But even before that - in the

1640's, John Goddard had a Garrison on the Neck. And by the 1640's John Smart had moved from Exeter Village onto Bayside lands south of the Lamprey (present site of Town Farm). Mill grants were made at the First Falls of the Lamprey and the First Falls of the Piscassic - saw mills and later grist mills.

Other Garrisons included the Joseph Chesley Garrison and the David Davis/John Smith Garrison further up the Lubberland shore which became part of Newmarket when the "Durhamside" was annexed in 1870. Also, the Ames Garrison out on the Piscassic; the Col Joseph Smith Garrrison (later the Kittredge House); the Jeremiah Folsom Garrison (on Mathes/Beaudet Hill); and the old Garrison out on the Grant Road. (The latter named for an early Indian grant to the Hilton family.

There had been an Indian Village below the Lamprey First Falls (east bank) and graves on the west side of the River. The Piscassic Falls (Water Works) were the site of the Taylor/Rollins Indian massacres of 1704 and 1723. Other Indian sites include where David Davis was killed (1696 in Lubberland); where Ephraim Folsom was killed (1709 near Crow & Eagle Falls); where Arthur Bennett was killed (1722 on his homestead); as well as other sites now falling in Newfields.

Farms gradually spread up the rivers and settlers made use of falls further upstream - Ardill's Falls (Bennetts); Crow & Eagle Falls. There have been fish weirs below the Lamprey First Falls for centuries. Ships were built beside the Lamprey below the Great First Falls and remnants of our shipbuilding past include the Town Landing, the great iron ring at the site of the old Rope Walk, and old rings at the Lower Narrows and beneath Picked Rock Bridge. We boast the remains of an old silver mine on the east side of Great Hill and a great number of old farm cemeteries have been well indexed by Roy Kent.

In 1727 the northern portion of Exeter separated from the mother town and became the new township of Newmarket. At that time our bounds included what is now Newfields. Newfields (or South New Market) continued as part of Newmarket until 1849. So our first geographical center was approximately at the site of the present Rockingham Junction and the sites of the First and Second Meeting Houses were there as was the home of the first long-time minister Rev. John Moody (still standing). The site of the Town Pound is known and some of our early district schools are still standing. Several old farms in scattered parts of the town survive and many of the buildings in the center of town also date back into the 18th century including homes on Pork Hill, Zion's Hill and on the roads branching out from Lamprey River Village.

Newmarket entered into what has been called the industrial era when the Newmarket Manufacturing Company (a Salem-based company) was established in 1822. This began the simultaneous evolution of factories, homes, shops and institutions that were stimulated by the growth of the company. The new mills used water power for cotton textile production based on practices developed in the early 1800's by the Boston Manufacturing Company of Waltham, Massachusetts. The development of water

power sites for cotton factories was not unique to Newmarket but an established practice in Nashua, Dover and Somersworth as well.

In the 1920's Newmarket's development began to level off and in the next decade with the Great Depression, local building and manufacturing dropped significantly. The economic vitality all but vanished from Newmarket. After the Great Depression the Sam Smith Shoe Co. came to Newmarket. In more recent years, industries making use of the old mills have included other shoe companies; the Macallen Co. (mica insulation products); a distillery; the Newmarket Press; and Kingston-Warren (tooled metal products). Today, the old mill buildings and shops in downtown Newmarket are taking on new uses, while the town still retains a great concentration of its 19th century industrial, commercial, public and domestic architecture.

The researches of the local New Market Historical Society (which maintains the Old Stone School Museum) are an ongoing project. Maps and lists of their historical inventories of the town are on file for reference with this Master Plan. There are presently over 350 buildings and sites listed on the historical inventory.

Historic Sites and Structures

1. Types and Styles of Architecture. Textile mills of Newmarket Manufacturing Company: Mills Nos. 1-3 were built of great granite blocks and dominate the handsome setting at the Lamprey First Falls. Mill No. 1 originally had a cleristory - lost in rebuilding after a mill fire. Mill No. 2 retains its impressive bell tower. Mill No. 4 was built of trap rock and Mills 5, 6, and 7 of brick. Mill No. 8 (the great weave shed - brick) is no longer standing. The Mills Nos. 1-7 are supplemented by stone sheds north of the river, a brick machine shop at the falls and other smaller buildings.

Other stone buildings in town include the two on either side of Tenney's Corner (lower Main St.) and the Stone Church (1834) and Stone School (1841) on Zion's Hill. One small late Federal brick building stands just north of the old wooden "Willey Hotel". A tall wooden "tailoring shop" built with balloon construction is a relic of early factory days in the clothing industry.

Brick business blocks of the mid to late 19th century are standing beside older wooden buildings on Main Street, some of which perhaps date back into the 18th century. Other brick buildings include the John Webster Library with its slate roof and unique tower room and the Agent's House on the opposite corner of Elm St. "Steamboat Block" on Spring St. is an unusual relic of early wooden mill housing. Duplex mill housing occurs in "Little Canada", the "New Village" and north of the Picked Rock Bridge. Many of the duplexes in New Village are of brick and of stucco. One or two fine Victorian homes still remain (i.e. Caswell Mansion and Griswold home). Many fine old 18th and early 19th century wooden town homes and farms survive. A scattering of homes survive which have been made from barns.

2. Inventory of Historic Structures - The Newmarket Historic Society has compiled the following inventory of historic structures in town (see Appendix C). This inventory is by no means a final analysis of historic structures in Newmarket and is constantly being revised and updated. It does serve as a general guide of the most historically significant and noteworthy structures in Newmarket including the approximate age and location. This list is updated to June of 1994.

3. Historic Graveyards - The Newmarket Historic Commission has compiled a list of public and private graveyards of historical significance. This is not a complete inventory but the most accurate assessment to date. Many of the sites have as few as one tombstone or marker but provide a major link to Newmarket's past. The map of the historic graveyards in town is available from Roy Kent of the Historic Commission.

Newmarket Industrial & Commercial Historic District

On December 1, 1980 the town established and identified structures in the Newmarket Industrial & Commercial Historic District. The District is listed in the National Register of Historic Places. This list is included in Table 9-2 at the end of the chapter.

Newmarket's Industrial & Commercial Historic District is located in an irregular pattern along Main and Exeter Streets, bounded roughly on the north and east by the Lamprey River and on the west by Granite Street and on the south by Gerry Ave.

A complete listing of historic structures, farmscapes, views and natural features can be found in Appendix C of this document

Recommendations

1. The Town should work to foster appropriate appreciation for historic preservation. The Planning Board and Council should develop and implement Zoning and Site Plan regulations which preserve and protect the historic character of Newmarket. Future development should be sensitive to the historic character of buildings and of the neighborhood as seen in the recent expansion of the library and Newmarket Getty Station.

2. Although there is apparently a lack of support for it at the moment the Town should consider the issues involved in organization of a proper Historic Commission and establish bylaws for the protection and preservation of historic sites and structures in Newmarket.

3. The Historical Society and Town should consider establishing a historic landmark program that would provide markers and plaques for historic sites and structures in town. Current plans call for a cooperative program with the High School trade program. This program should serve to bring about a heightened awareness of the Town's Historic resources.

4. The Town should develop and fund a trust fund for preservation and maintenance of private graveyards. Interest from this fund could be used to provide funding for whatever maintenance is required by the Town. [Only one private graveyard in town (The Burley Graveyard) currently has perpetual care.]

CHAPTER X. Future Land Use

Chapter X takes much of the background information collected and recommendations made in the previous nine chapters and puts it into a planning perspective. Consideration of the towns past and projected population and housing trends, natural resources, existing land use patterns, and the state of public facilities and services are given in this chapter. The Future Land Use chapter is conceptual in nature and provides general guidelines for developing regulations at a later date. Without the regulations (i.e. zoning ordinances, building codes, site plan review/subdivision regulations,etc.) to back the information presented here, the Master Plan is only a theoretical document which cannot be implemented.

Future Residential Use

As indicated in the Population and Housing Chapters of this Master Plan, Newmarket's growth rate exceeded 50% in both housing and population since 1980. Additional dwelling units in Newmarket since 1980 has exceeded every other neighboring town by over 500 units. The information collected in the Housing Chapter also indicates that Newmarket supplies a relatively high proportion of low to moderate income dwelling units.

Residential development has spread beyond the downtown area and into the more rural and undisturbed areas of town. This has long term impacts for infrastructure and community services, including school access, recreation and transportation. In addition, the Town will begin to confront the increased demand for home occupation and daycare services as the traditional household takes on new permutations.

The rapid growth of the 1980's in Newmarket led to the adoption of a Growth Control Ordinance (in place from 1987-1989), new community infrastructure and rising taxes. This development also led to the less direct increases in services such as fire, police, school and road maintenance and repair. As the Planning Board updates this Master Plan it must confront choices for long term development in the Town. The policies set forth in this Master Plan an implemented in town ordinances will shape the future Newmarket.

This chapter seeks to give some objective criteria to the long-term growth policies of the town. A constraint map has been developed based on environmental, infrastructure and locational criteria. This constraint map of future land use is based upon criteria developed by the Board. In addition this document will lay out some future principles espoused by the Planning Board and the Master Plan Committee in 1994.

Residential Zoning Amendments

Previous Zoning Ordinances for Newmarket (1980 and 1988) have relied on traditional large lot/low density requirements and "carefully planned expansions of the sewer service area" to meet community growth patterns. The intention of these ordinances was to control development and preserve the rural character of the town. In 1994 the Planning Board will be reviewing all of the Town Ordinances as to their effectiveness and promotion of the goals expressed in the vision statement and other chapters in this plan.

Of expressed concern is also the large numbers of high density housing and the effect of this housing type on the tax base. The Committee and residents have expressed a desire to limit future multi-family development in Newmarket to be more representative of the regional distribution.

The Board has heard the desire for the promotion of "quality" development in its broadest sense.

Future Commercial Land Use

Growth in Newmarket over the past ten years has been predominantly residential development. One of the main goals of the planning board is to establish a balance of growth in town including commercial and industrial land uses as well as residential. While commercial development may create a fair amount of stress on certain public facilities and services (in Newmarket's case, public water and sewer) and should be addressed in any growth control ordinance, the Public Works Director has indicated that commercial development has had a minimal impact on the town. Specifically, he sites that commercial consumption of public water is well under 10 percent of the total water production.

The town should review current commercial districts in the zoning ordinance. Future development should be geared to retaining service dollars in Newmarket and creating development which allows Newmarket residents to obtain more services and entertainment in Town. The Board is also aware of the changing nature of commercial development and acknowkledges the need for flexible regulations which address home occupation, day care neeeds, and potential zone expansion.

Mill Reuse

The town should promote a flexible mill reuse district that would specifically address redevelopment of these enormous buildings. These historic structures are beautiful and unique and should be addressed separately from other zoning districts in town. They also represent an opportunity to provide needed commercial and residential space and, consequently, revitalize the downtown area.

Any development in the mill area should be developed with due regard the significant importance of the structures to the downtown and with due regard to the potential on-site complications. A comprehensive mill reuse plan should be a continual project of the Council, Board and Econoic Development Committee.

- what is the latest in this scenario
- what are the feelings of the Board

To assure that the impacts are addressed and the benefits are realized, the planning board should establish a review procedure specially for mill redevelopment proposals. All proposals should preliminarily and subsequently address all potential impacts on public facilities and services as well as natural resources with an impact study that looks at on-site as well as town-wide impacts. The preliminary review should identify the interests of potential developers, inherent characteristics of the mill structures, tabulation of usable area and different development scenarios (residential/commercial ratios), parking requirements and other problems. After the impact study and potential benefits have been presented to the planning board it should be determined what mix of uses will be allowed.

Future Industrial Land Use

Outside of the town center, industry is currently permitted in the small industrial park off Young Lane and the larger industrial park, developed in the early 1980's, between Exeter Road (Route 108) and the B&M Railroad line.

Currently available sites are extremely limited. The Town will have to consider the need to expand infrastructure to develop additional industrial sites. The Board should also work to develop more comprehensive impact standards which would make additional sites more palatable.

Successful industrial zones should have good highway or rail access, proximity to town services (including water and sewer), site characteristics and ease of commuting. Since there is a scarcity of appropriate locations for industrial growth in Newmarket, it is important that the town encourage light industry to locate in these specific zones by allowing the purchase of lots (as opposed to leasing) or providing economic incentives such as tax breaks or free infrastructure tie-ins over a period of time.

The uses permitted in the established industrial zones in Newmarket should also be expanded to allow other activities such as research and development facilities and warehouses. However, heavy industry and industry which creates an objectionable amount of pollution and other detrimental effects should not be allowed in the zones. It is the planning boards hope that providing incentives for potential industrial developers and proposing commercial zones in close proximity to the industrial park will help create better incentives for light to medium industries.

Open Space and Recreational Land Use

Open space conservation and preservation is one of the towns primary goals. Newmarket is blessed with an abundance of scenic and environmentally valuable natural resources throughout towns. The town is responsible for protecting these resources. Open space should be used to protect land and access in non-buildable areas, but should not be limited to land which is economically unsutied to building.

A revived conservation commission, in cooperation with other town boards and local residents, should establish an effective program for the acquisition of lands for open space and recreational opportunities in order to meet the demands of towns people for additional recreational facilities and need for open space protection created by further residential development. The funds necessary to acquire lands to meet the existing need for open space and recreational facilities must be provided from, in part, a town trust fund established for the specific purpose of land acquisition as well as other state and federal sources.

Land suitable for residential development pursuant to existing and future land use regulations should be required to designate land for open space and recreational facilities as needed by the future residents of the developed area. If land cannot be dedicated, the developer should be asked to make a deposit in a nonlapsing trust fund established and maintained by the town, an amount of money equal to the amount of land as would have been required to be dedicated. The purpose of the trust fund would be specifically for acquiring and developing land necessary to meet the need for open space and recreation facilities created by the development.on extrapolation from historical trends.

Future Land Use Scenarios-

Using geographic data the Town has developed a Future Land Use Scenario Map which shows land most suitable for future growth based upon constraints. The constraint scenarios proposed include:

- exclusion of poorly and very poorly drained soils (wetlands)
- proximity to public roadways...based on proximity buffer excluding private and unpaved roads
- exclusion of protected lands
- recognition of aquifer protection areas
- excluision of land in floodplains
- exclusion of steep slope and riverbank areas
- exclusion of existing residential/downtown development
- current zoning verses more flexible scenarios to show how many units of development are possible
- existing sewer/water

The scenario will determine:

available acres/# of housing units/location of available land and potential logical sewer/water extensions

APPENDIX A. COMMUNITY SURVEY

Survey Process

In the Fall of 1993 the Newmarket Planning Board and Master Plan Committee commissioned a community survey as part of the Master Plan development process. This survey, conducted under contract with the Strafford Regional Planning Commission, was developed interactively in order to yield feedback from town residents which would assist in future planning efforts. Many of the questions reflect issues brought out in previous economic development and environmental studies of the town. The results are presented as part of the Master Plan, and have given direction to the goals, objectives and issues discussed in this plan.

To maximize response and minimize cost, the Master Plan Committee developed a multimethod survey which relied most heavily on a random phone survey of the population of Newmarket and to a lesser extent on volunteered questionnaires. The random phone sample consisted of just over 165 completed surveys drawn from computer generated phone numbers of Newmarket residents. In addition, the final survey was published in the **Transcript** and left, for a two week period, at various public places throughout the town, including Town Hall, Library and local businesses. An additional 26 surveys were returned.

The combined sample of approximately 200 surveys is a statistically significant, and representative cross sample of the population of Newmarket. A comparison of the demographics of the sample to the 1990 Census confirms a response from a broad range of the actual town population. That crossection included property owners and renters, families and individuals with and without children in the school system.

The survey itself was developed in an iterative process over the course of several public meetings of the Master Plan Committee. Groups such as the School Board, Conservation Committee and Lamprey River Committee were invited, and submitted questions in the final survey. Care was also taken to reflect issues brought up in the recently completed Planning and Economic Development Study prepared by Northern Economic Planners.

Survey Results

Results from the survey were compiled in SPSS by Strafford Regional Planning and presented to the Master Plan Committee in January 1994. **TABLE A-1** is a complete listing of survey results. In general the responses reflect the expected primary concern with taxes, the school system, the Town's economic viability and a clear preference for less multi-family and more flexible land use regulations.

TABLE A-1
Newmarket Survey Results

(Q1) Sex Male 42% Female 56%
(Q2) Age 19-30 20% 30-50 50% Over 50 29%
(Q3) Are you a Resident 88% Business owner/operator 3%

(Q4) Do you have children enrolled in Newmarket's public schools or in Private school?
Public 29% Private 4% No 65%

(Q5) Do you currently own or rent your residence? own 68% rent 31%

(Q6) Do you or your family make use of the river or bay in town?
Yes (frequently)16% Yes (occasionally)35% No (not at all)49%

(Q7)Please evaluate issues which you think will concern Newmarket over the next ten years?

	Most Important	Of Some Importance	Least Important
Transportation	24%	52%	18%
Employment	64%	24%	7%
Environment	63%	32%	3%
Housing	32%	37%	25%
Recreation	30%	48%	19%
School System	75%	13%	5%
Day Care	36%	29%	20%
Taxes	79%	12%	3%
Protection of Town's character	43%	37%	15%
Ties with UNH	32%	36%	30%

(Q8) Please indicate the relative importance of the following items in terms of where you want your tax dollars spent.

	Most Important	Of Some Importance	Least Important
Roads and infrastructure	35%	60%	5%
Fire Protection	60%	36%	3%
Police Protection	61%	31%	6%
Recreational Facilities	22%	51%	23%
Planning & Econ. Dev.	52%	33%	11%
Recycling/Solid Waste	58%	30%	10%
Preservation hist. prop.	30%	35%	31%
School system	70%	19%	5%
Water access	28%	44%	23%
UNH ties	22%	40%	30%
Environmental Protect.	51%	36%	10%

(Q9) A town can promote or discourage certain types of development through planning and zoning regulations. *(Q9) **Should town plans and ordinances encourage or discourage the following types of activities in Newmarket over the next ten years?***

	Encourage More	It's About Right	Discourage
Commercial (retail)	72%	13%	11%
Industrial & manufact.	68%	17%	11%
Professional Offices	60%	27%	7%
Single Family Res.	43%	33%	17%
Multi Family Res.	17%	19%	55%
Open Space	64%	25%	6%
Downtown core	61%	27%	6%
Recreation/tourism	50%	29%	15%
Agriculture/Forestry	41%	34%	13%

(Q10) Please indicate the relative importance of the following item's in terms of where you would like to see school funds spent.

	Most Important	Of Some Importance	Least Important
School facilities	41%	39%	9%
Academic programs	74%	15%	3%
Staff development	44%	32%	12%
Athletics and extracurricular	32%	40%	19%
Math, science and technology	75%	14%	1%

A Town's zoning can also influence the pattern of development which occurs within its boundaries. *(Q11) **Which of the following patterns of commercial development most closely represent what you would like to see in Newmarket?***

8% Retail corridors like Portsmouth Avenue (NH 108) in Stratham/Exeter
41% More mixed use downtown development like Exeter
22% Small shopping plazas like Durham Plaza on Mill Road
3% Large malls as in Newington
13% Mill redevelopment

*(Q12) **Given development over the past ten years, do you feel the development regulations are:***

24% Too restrictive 19% Too Lax
18% Alright 37% Don't Know

*(Q13) **Would you be in favor of the following changes in the Town's development regulations if it were done with due regard to maintaining the character of the neighborhood:***

Would you support relaxed regulations

YES 54% No 16% 1) Allowing more limited home occupations?
YES 50% No 24% 2) Allowing mixed development in more areas of towns?
YES 33% No 32% 3) Allowing higher density development in downtown?
YES 36% No 25% 4) Allowing higher density development in other areas of town?

(Q14) What type of business would you like to see in downtown that do not currently exist?

1) Specialty Retail
2) Staple Retail
3) Pharmacy

(Q15) *Should the town expend tax dollars to actively promote economic development?*

Yes 68% No 22%

if yes, in what area of town should these efforts focus:

YES	34%	1. downtown
YES	12%	2. West of town center, Rt.152
YES	13%	3. South of town center, Rt. 108 towards Newfields
YES	46%	4. North of town

On what types of development?

YES	46%	1. Retail
YES	25%	2. Professional/office
YES	25%	3. Industrial
YES	7%	4. Other

(Q16) Should the town purchase or protect land for public use or preservation of open space?

76% Yes 16% No 8% Don't know

(Q17) What attracted you to Newmarket?

7% Job	8% UNH
25% Housing	20% Geographic Location
2% School system	13% Quality of Life/Environment

(Q18) What is your most frequent reason for traveling outside of Newmarket on a daily basis?

44% Job	5% UNH
2% Housing	10% Goods and services
2% School system	27% Services (shopping)
.5% Entertainment	Recreation
4% Other	

(Q19) What is your favorite place in town to visit or spend time at?

1) Waterfront
2) Post office
3) Downtown restaurants

(Q21) Should the town expend extra resources to expand the recycling program (ie curbside pickup) if it will reduce long-term waste disposal costs?

83% Yes 9% No 5% Don't care

(Q22) *Are there any other potential issues that you feel are of importance and should be addressed in the Master Plan. If so please indicate:*

12% Lower taxes
6% Schools
4% Attract business

TRENDS:

Respondents displayed a primary concern for essential issues such as basic services, town taxes and the school system. There was a clear message as to the priority of environmental protection and the importance of Newmarket's natural resources and quality of life. Over 51% of respondents make use of the river or bay in town and an astonishing 76% approved of the town purchasing or protecting land for public use. (the inclusion of a high rating for purchase hopefully reflects an awareness of this process as a town expense). In addition, over 80% supported the expansion of the town's recycling program.

Quality of life and identification with the character of the town also seem to be very important. Geographic location and quality of life ranked above jobs and the school system for reasons of attraction to Newmarket. Respondents also seemed to identify strongly with the downtown area. All of three volunteered favorite places are in the downtown area (Post Office, Waterfront and downtown restaurants). In general, there was a clear desire to expend resources to promote economic development, especially in the downtown area, directly and through more flexible regulations.

There was a clear rejection of large malls and strip patterns of development in favor of small plaza and downtown development. The survey also showed a strong preference for increased retail development of both staple and specialty businesses.

In terms of town zoning and regulation, the majority of those familiar with the regulations favor allowing more mixed use development and more flexible regulations, especially in the area of small business development. Among those familiar with the town's development regulations opinions are equally split as to whether they have been too lenient or too restrictive. The results reflect a general consensus, shared by the economic development committee, to build in flexibility to town regulations while actively protecting and promoting the character of the town and the environmental qualities which attracted people here in the first place.

It should be understood that interpretation of the survey results is subjective. Results only reflect responses to questions asked.

Complete survey results are on file at the Town Hall in the Planning and Public Works department office. Strafford Regional Planning may also offer assistance in data analyses or follow up work.

Appendix B: Generalized Land Use Classification

The SRPC Generalized Land Use Coverage is intended to be used as a planning tool for the Strafford region and member communities. The coverage was developed as an initial attempt to identify and quantify land use patterns at a regional level. Intended uses include regional analyses and preparation of generalized land use maps for the region and member municipalities. These maps can be used in Master Plan updates and local and regional planning studies.

The generalized coverage represents areas of similar land use. The coverage does not, and was not intended to, represented parcel boundaries or individual property land uses. Land use areas were based on interpretation of USGS quad sheet markings and 1987 aerial photo interpretation. Site uses, such as single family residences, were buffered by approximately 500' or to an extent which would produce continuous strips with adjacent similar uses. As such there are no fixed buffering dimensions used in the creation of land use areas. Areas presented are considered to be accurate for initial use. These areas will increase in accuracy with scheduled local revisions.

Classification System Background

The SRPC land use coverage is intended to be a generalized representation of land use patterns in the Strafford Planning Region. It is a **non-parcel based** system which attempts to represent functional activity. This should be distinguished from the inter-dependent concept of land cover which is based upon formal physical characteristics and zoning which is based upon preferred, or regulated, strategies for future land use. In modern planning terms, land use and land cover are increasingly viewed as the same. This is due to the increasing use of satellite and aerial imagery which often fails to distinguish land use activity.

It must be understood that there is no single, "correct" or "standardized" land use coding scheme. Classification systems and display methods vary dependent upon the desired use of the map. Even among government agencies there are considerable variations in coding schemes and definitions.[1] The Bureau of the Budget has created a *Standard Industrial Classification Manual* which categorizes uses by nested numerical values, but this is more related to economic than use activity.

The classification system used in this project is based upon a modified USGS Level I coding scheme. Coloration is based upon the standards set forth in **Planning Design Criteria, (DeChiara and Koppleman)** and modified based upon the limitations of colors available on our in house plotter. Additionally, the system used was designed to be compatible with regional land use maps produced in 1977 by the Strafford/Rockingham Regional Council and in 1974 by the Strafford Regional Planning

[1]USGS, DoE and US Standard Land Use Codes, specifically

Commission. The Environmental Planning Study Maps produced by the Commission in 1974 represented the most comprehensive regional environmental mapping project done to that date.

This system provides adequate generalized land use classification. The following descriptions should be used to further standardize land use description for this mapping project. Italicized uses are noted as included, but not exclusive, examples.

Single Family:	Areas of detached single unit residences.
Multi-Family:	Areas of attached and detached multi-family residences, apartment complexes, etc.
Mobile Home Park:	This classification is intended for representation of delineated groupings of homes in subdivisions. Scattered mobile homes are listed as single family.
Commercial:	Areas of retail and service establishments. • *Greenhouses*
Industrial:	Areas of manufacturing, non-retail commercial or extractive facilities. • *Active Gravel Pits*
Urban Center/Mixed Use:	Used in urban areas or non-urban areas where uses are too mixed to be mapped individually at the given scale.
Developed Institutional:	Used to represent public **structures** and **associated properties** and educational and administrative facilities. **ALSO...**Religious facilities and cemeteries. • *Town dumps* • *Sewage Treatment Plants*
Public/Recreational:	Used to represent local, state and federal parks, recreation areas, playgrounds and ball fields as well as private recreational areas such as golf courses, sport facilities and reserves. • *Note: conservation easements, publicly owned lands and trusts are forms of ownership. They are not mapped as a "use" in this coverage unless the ownership translates into actual functional use.*
Agricultural:	Used to represent crop and active pasture lands, dairy, and livestock facilities-whether public or private.
Open Space/Vacant:	Used to represent transitional lands • *inactive or abandoned gravel pits and mines*
Forest:	The default coverage category. All land areas not designated with one of the above use categories.
Water:	Water bodies as defined by USGS 1:24,000 hydrology polygon information.

Appendix C. Historic Inventory

BUILDINGS AND STRUCTURES OF THE NEWMARKET INDUSTRIAL & COMMERCIAL HISTORIC DISTRICT

Map #	Building/Structure	Year	Map #	Building/Structure	Year
01	NMC Mill #1	1823-24	35	30-32 Nichols Avenue	c. 1885
02	NMC Mill #2	1825	36	26-28 Nichols Avenue	c. 1885
03	NMC Mill #3	1827-29	37	22-24 Nichols Avenue	c. 1885
4a	NMC Mill #4	1869	38	18-20 Nichols Avenue	c. 1885
4b	Link Mills #4 & #5	1880	39	14-16 Nichols Avenue	c. 1885
05	NMC Mill #5	1880-81	40	10-12 Nichols Avenue	c. 1900
06	NMC Mill #6	1891-92	41	2-4 Spring Street	c. 1890
07	NMC Mill #7	1901	42	6-8 Spring Street	c. 1900
08	Store House #1 & #2	1850+1870	43	10-16-18-20 Spring Street	c. 1890
09	Store House #4	c. 1860	46	68-70 Main Street	c. 1852
10	Machine Shop	c. 1840-50	47	72-78 Main Street	c. 1826
11	53 Main Street	c. 1800	48	Newmarket Professional Bldg.	pre 1832
12	Library (J. Webster Hall)	1884	49	Masonic Block	1873
13	2 Elm Drive	c. 1825-30	50	88 Main Street	c. 1850,1892
14	1-3 Elm Drive	c. 1880	51	90 Main Street	c. 1870-80
15	6-8 Elm Street	1890-1910	52	96 Main Street	c. 1830-32
16	10-12 Elm Street	c. 1880-90	53	98 Main Street	c. 1830
17	22-24 Elm Street	1850-60	54a	Willey Hotel	pre 1822
18	2-4 Washington Street	c. 1830-60	54b	100 Main Street	c. 1900-04
19	6-8 Washington Street	c. 1830-60	55	Barnard Block	1891
20a	4 Elm Drive	c. 1830	56	108 Main Street	c. 1894-98
20b	4 Elm Drive		57	Durgin Block	1984
21	1 Lincoln Street	c. 1830	58	Newmarket Bank	c. 1835
22	5 Lincoln Street	c. 1823-32	60	Newmarket Town Hall	1847
23	7 Lincoln Street	c. 1830	61	Newmarket Community Church	d. 1828
24	9 Lincoln Street	c. 1832	62	Indian Head Bank	c. 1920
25	11-13 Lincoln Street	c. 1830	63	146 Main Street	c. 1880
26	5-7 Nichols Avenue	c. 1900	64	152 Main Street	c. 1850-70
27	9-11 Nichols Avenue	c. 1900	65	156 Main Street	c. 1850-70
28	13-15 Nichols Avenue	1952	66	162 Main Street	c. 1850
29	17-19 Nichols Avenue	c. 1885	67	Mathes Block	c. 1840
30	21-23 Nichols Avenue	c. 1885	68	170 Main Street	c. 1840
31	25-27 Nichols Avenue	c. 1885	69	Engine House	1853
32	29-31 Nichols Avenue	c. 1885	70	Newmarket School	1874
33	33-35 Nichols Avenue	c. 1885	71	Newmarket High School	1849-50
34	34-36 Nichols Avenue	c. 1885	72	180 Main Street	1835-60

73	St. Mary's Rectory	1889
74	St. Mary's Church	1897-98
75	St. Mary's School	1910
76	185 Main Street	1867-80
77	183 Main Street	1867-80
78	1 Tasker Lane	c. 1830
79	181 Main Street	1830-40
80	179 Main Street	
81	Cheswell-Saunders-Kennedy Store	pre 1817
83	171-173 Main Street	
84	165-169 Main Street	c. 1847
86	149-151 Main Street	1860-70
87	143-145 Main Street	post 1866-67
88	New Creighton Block	c. 1880
89	4 Water Street	1867-80
90	Lang Blacksmith Shop	1891
91	3 Prescott Street	1835-50
92a	Mathes House	c. 1835
92b	1 Prescott Street	c. 1870-80
93	3-5 Exeter Street	1870-80
94	11 Exeter Street	c. 1830
95	13 Exeter Street	1830-40
96	15 Exeter Street	1840-50
97	17 Exeter Street	c. 1885
98	19 Exeter Street	c. 1880-85
99	23 Exeter Street	c. 1830
100	8 Exeter Street	1920-30
101	12 Exeter Street	c. 1832
102	14 Exeter Street	c. 1833
103	18 Exeter Street	c. 1833
104	20 Exeter Street	c. 1833
105	3 Tasker Lane	c. 1850
106	5 Tasker Lane	1840-50
107	6-8 Tasker Lane	c. 1850
109	3 Gerry Avenue	c. 1850-80
110	5 Gerry Avenue	c. 1885
111	Stone Church	1832
112	Stone School	1840-42
113	11 Chapel Street	c. 1830
114	11 Chapel Street	c. 1830
115	5 Chapel Street	1836
116	Jewell Tasker House	pre 1832
117	10-12-16 Chapel Street	1879-80
118	6 Chapel Street	c. 1840
119	4 Chapel Street	c. 1840
120	6 Chapel Street	c. 1860
121	24 Central Street	c. 1860
122	22 Central Street	1840-50
123	Polish Club, Italianate	
124	12 Central Street	1820-40
125	6-8-10 Central Street	1790-1820
126	2 Central Street	1860-80
127	3-5 Central Street	c. 1850
128	9,11,13,15 Central Street	
129	19 Central Street	c. 1840
130	23 Central Street	c. 1890
131	25 Central Street	
132	29 Central Street	
134	7 Church Street	c. 1840
135	5 Church Street	c. 1840
136	3 Church Street	c. 1840
137a & b	Corner Rock & Church Streets	
138	Rock Street	c. 1860/c. 1895
139	3 Rock Street	1830-50

* #44, 45, 59, 82, 85, 108, 140 are non-conforming intrusions detracting from the integrity of the district. Future signals at this location must be placed in such a way as to avoid causing vehicles to stop on the grades.

Table 9-1. Historic Structures in Newmarket:

FARMSCAPES AND VIEWS:

Ames/Hamel Farmscape	(Hall's Mill Rd)
Brackett/Hauschel Farmscape	(Ash Swamp Rd)
Labonte Farmscape	(New Rd)
Lyford Farmscape	(Hall's Mill Rd)
Shackford/Sawyer Farmscape	(Off New Rd)

View of:

- Great Bay & Jewell's Point from Randall/Pitman Hill	(Bay Rd)
- Great Bay from Smith/Popov Farm	(Bay Rd)
- Great Bay,Vols Isl. & marshes from Smith/Pearson Field	(Bay Rd)
- Chesley's Islands & Goddard's Creek Marshes	(Bay Rd)
- Great Bay & Lamprey River from site of Doe's Garrison	(Doe's Neck)
- Lamprey River from site of Samuel Doe Home	(Beauchesne's/Doe's Neck)
- Lamprey River & Great Bay	(from Shackford/Watson/Sawyer/Point)
- up Lamprey River	(from Picked Rock Bridge)
- Mill Pond and Mills looking down river	(Picked Rock Bridge-northside)
- Granite Mills Nos.1-2-3	(down river)
- Lamprey River & Village	(top of Zion's Hill)
- NE bank of Lamprey and Split Rock	(Town Landing)
- Bay and marshes and fields from Mathes/Labonte farm	(Bayside)
- marshes and Bay from site of Burley/Robinson Farm	(Bayside)
- from Grapevine Hill	(old Hilton Grant)
- Bay from Valentine Smith House	(Bay Rd-house with cupola)

NATURAL FEATURES:

Split Rock	(NE bank of Lamprey)
Sliding Rock	
Red Rock	(Broad Cove in Lubberland)
Patriarch Pine & Ancient Oak	(above Lamprey First Falls)
Lamprey River	
Piscassic River	
Lamprey River First Falls	
Piscassic River First Falls	
Ardill's (Bennett's) Falls	(Piscassic River)
Crow and Eagle Falls	(Piscassic River)
The Creek	(flows into Lamprey near Town Landing)
Solon's Brook	(runs parallel to So Main St & So of it behind HS)
Chapman's Tannery Brook	(runs behind Kent's Funeral Home)
Falls Brook	(enters Lamprey below First Falls & no of River)
Goddard's Creek	(in Lubberland-aka Lubberland Creek)

NATURAL FEATURES: (cont'd)

Grapevine Hill	(Hilton's Grant-some maps as Grape Hill)
Great Hill	
Pine Hill	
Jeff's Hill	(in Lubberland)
Bald Hill	
Shackford Hill	(Elm St)
Mathes/Labonte Marshes	
Burley/Robinson Marshes	(Bayside)
Smart/Town Farm Marshes	(Bayside)
Silver Mine	(Great Hill)
Chapman's Spring	(Seawall property off Wadley's Way)
Ira's Spring	(off Ash Swamp Rd)
Jacob's Well	(cor Bald Hill & Grant Roads)

Chapman's Tannery Pond Site
(low land near present jct Gerry Ave. & Exeter St)

Bear's Garden
(rocky area in both sides of river in Lamprey from Narrows down river as far as the first bend in river)

DAMS:

Lamprey River First Falls
Piscassic River First Falls
Also sites of Dams at:
Ardill's (Bennett's) Falls
Crow and Eagle Falls

BRIDGES, FERRIES AND SPECIAL LANDMARKS:

Covered Bridge	(below Lamprey First Falls Dam)

(Perhaps the only one left in this area)

Moonlight Bridge	(where Wadley's Way crosses Piscassic)
Picked Rock Bridge	(Northside, where Route 108 crosses Lamprey)
Little Diamond	(RR Bridge over Lower Piscassic)
"Creek" Bridge	(where Creighton St crosses "The Creek")
Site of Crommet's Ferry	(at Lower Narrows of Lamprey)
Town Landing	(end of Water St)
Fish Weirs	(on Lamprey near Town Landing)
Stone Walls	(all about town)

(Special Note: wall on south side of Grant Rd beyond Four Corners)

ANCIENT ROADS:

Ash Swamp Rd

Bald Hill Rd

Country Rd to Exeter

(present route was changed around Pine Hill for RR & also in lower village after Solon's Brook drainage was controlled)

Country Rd to Oyster River Falls

Farm Lane to Burley homestead at Bayside (1699)

Farm Lane to Shaw/Langley/Kimball from Lubberland Rd

Farm Lane to Mathes/Labonte (Bayside) from Exeter Rd

Farm Lane from John Perkins (off Ash Swamp Rd)

Farm Lane to Shackford/Watson/Sawyer at Bayside (from Exeter Rd)

Farm Lane to John Smart/Town Farm at Bayside

(from Exeter Rd/probably first settler circa 1642)

Farm Lane between Ash Swamp Rd & Hersey Lane

Farm Lane to Tuttle/Fogg off Wadley's Way

Grant Rd (to Edward Hilton Jr.'s Grant of 1660)

Hall's Mill Rd (more recently known as Neal Mill Rd)

Hersey Lane to home of Peter Hersey (1687-1722)

Lubberland Rd (now called Bay Rd)

Main St (& River Rd) as it used to run thru mill yards & along river

Martin's Lane (on Goddard's Neck, aka Doe's Neck)

Norton Lane off Wadley's Way

Old Lee Rd (off Hall's Mill Rd & into Newfields)

Packer's Fall Rd

Pindar Lane (uphill from Creighton St & leading to Pindar pastures)

Poortown Rd (now Lang's Lane)

Simon's Lane

(between Country Rd to Oyster River/Stage Coach Rd & down Lubberland)

Spring St

Town Landing Rd (Water St)

Wadley's Way (to Robert Wadley's Falls & mills- c. 1666)

(also spelled Wadleigh)

Way to Piscassic (now Elm St)

Young's Lane - down over "The Creek" & to Young homes on Pork Hill

ARCHEOLOGICAL SITES:

Indian Village below Lamprey First Falls (NE bank of Lamprey River)

Indian Graves (near Sliding Rock)

Goddard Garrison Site on Goddard's Neck (1st Settler No Lamprey Rv)

(aka Doe's Neck & Lubberland Neck - c.1647)

John Smart Home Site (1st Settler So Lampry River)

(Town Farm-at Bayside)

Site of Durhamside No.6 School on Lubberland Rd

ARCHAELOGICAL SITES: (cont'd)

David Davis/Capt. John Smith Garrison Site near Person Lubberland Rd

(David killed by Indians there in 1696)

Joseph Chesley Garrison site on T.J. Channell in Lubberland

Smith/Channell/Smas site beside Goddard's Creek

John Martin/Nicholas Doe Garrison Site

(on Newmarket Neck/Doe's Neck/Luberland Neck)

Samuel Doe/Bordman/Stevens Farm Site on Doe's Neck (now Beauchesne)

Site of Brickyards beside Lamprey on Doe's Neck

Site of Philip Crommet's Ferry at Lower Narrows of Lamprey

Iron Rings in Boulders at Lower Narrows of Lamprey

Sites of early mills at Lamprey First Falls (saw/grist/fulling)

Old Mill Races under the textile mills

Sites of old wharves along Lamprey Waterfront

Sites of old boatyards along Lamprey below First Falls

Iron Ring in rocks north of Picked Rock Bridge

Young/Chapman Farm Site at Lamprey First Falls

(where Agent's house is today)

Sites of two large brick mill tenements west side of Main St

Sites of Village Homes & Shops no longer standing

(Center of town covered with former old cellar hole sites, cemeteries, etc)

Site of 1847 brick Town Hall

Site of brick Newmarket house beside Town Hall on Main St

Site of Old Rope Walk east of Main St behind Mathes Brick Store

Iron Ring at Site of Old Rope Walk

Col. Joseph Smith Garrison Site stood where St. Mary's Church is today

(later known as Kittredge House-c.1729)

Glidden Home Site in Village not far from J. Smith home?

(by 1668)

Site of Neal Home 189 So Main St (torn down 1993)

Site of Moses/Norton Home corner of So Main St & RR St

(torn down 1993)

Judkins Home Site (So Main St)

Wentworth Cheswell Mansion Site

(where Rodrigues home is now on So Main)

Cornel Winthrop Smith Home Site (So Main St near HS)

Arthur Bennett Home Site on Wadley's Way

(killed here by Indians 1722)

Site of West Side Meeting House on Wadley's Way

Rev Nathaniel Ewer's Home Site near West Side MH

Walter Bryant 3rd Home Site (corner of Lee Hook Rd)

Col Thomas Tash Home Site on Plains

Keniston Home Site far side of Ash Swamp Rd

Watson Home Site far end of Ash Swamp Rd

ARCHAELOGICAL SITES: (cont'd)

Norton Home Site off Ash Swamp Rd

Perkins Home Site off Ash Swamp Rd (M Plante) (original barn standing)

Channing Folsom Home Site Ash Swamp Rd

(part of original home may have survived fire)

Pickering Home Site Ash Swamp Rd (opposite Herman Hauschel)

Manning Home Site Ash Swamp Rd (where Champman built)

Second Meeting House Site (near Rockingham jct-1792)

Lt. John Burleigh Home Site North of Pine Hill

Pine Hill School Site on Exeter Road

Town Pound Site on Exeter Rd

Moses Burley Home Site off Exeter Rd

James Burley Home Site at Bayside land (later Robinson) now Dalrymple

Jeremiah Folsom Garrison Site on Mathes/Beaudet Hill (1719)

Pest House Site on old Town Farm lands

Site of Kidder/Elkins/Priest/Pohopek House

(prob built late 18th century or very early 19th century & torn down by Town 1994)

Sites of early mills at Ardill's Falls (Bennetts) off Wadley's Way

Sites of early mills at Crow & Eagle Falls on Grant Rd (Piscassic River)

Early mills at Piscassic First Falls (saw & grist mills)

Sites of later mills at Piscassic First Falls

(Hall's Nut & Bolt Factory; Jewel Bobbin Mill)

Taylor/Rollins Home Site at Piscassic Falls

(Indian massacres there 1704 & 1723)

Ephraim Folsom Home Site-killed by Indians (near Crow & Eagle Falls)

Peter Hersey Home Site on Hersey Lane

William Folsom Site on Hersey Lane

Winthrop Hilton's Home Site on Grant Rd (later Knowles burned)

Nicholas Doe Farm Site on Grant Rd

Stephen Lyford Farm Site on Hall's Mill Rd (later known as Neal Mill Rd)

Ames Garrison Site on Hall's Mill Rd (now Hamel)

Josiah Hilton Home Site near Four Corners Grant Rd

Grant Rd School Site opposite R Schanda on Grant Rd

(School itself moved & is Cilley ho)

Shaw/Langley/Kimball Farm Site off Dame Rd

Gerrish Home Site off Grant Rd

Site of Ice House on Lamprey River above Dam at Ice House Cove

Sites of several cemeteries that are no longer at all visible but should be listed in case excavations are pursued in those areas:

Chapman Cemetery on Wilfred Hamel land off New Rd

Joseph Smith Cemetery between Gerry Avenue & Exeter Road

Walter Bryant Cemetery west of Main St & north of Central St

Doe/Champman Cemetery east of Lamprey St off Ham St Extension

Other old cemeteries whose only survival is their mention in deed bounds

ARCHAELOGICAL SITES: (cont'd)

Sopel's Pond on Solon's Brook was also the site of ice-making activities

Chapman's Spring was the site of a saw-mill at one time.

As well as the Iron Rings mentioned above* there others:

Two at the Upper Narrows (one in each of the Sister Rocks)

One in Pound Rock & one across the River from Pound Rock (on Wajda property)

At least some of these rings were used to warp large vessels up the river.

*(two at Lower Narrows of Lamprey, one at Picked Rock Bridge and one at the site of the Rope Walk)

HISTORICAL BUILDINGS INVENTORY:

Doe/Bordman/Stevens/Beauchesne Home (on Doe's Neck)

(Burned perhaps contains old foundations)

Smith/Doe/Randall/Zuk Farm in Lubberland (before 1871)

Lt./Dea. John Smith Farm (Built by Ben Smith, now Popov (1709-1791)

Valentine Smith Home (with Cupola) on Lubberland (Bay) Rd (born 1800)

Downing/Furber/Snow Home on Bay Rd (Before 1871)

Downing/Hayes/George House on Bay Rd (Before 1871)

Willey House (12-14 Bay Rd-very old)

Keniston/Atherton House (10 Bay Rd)

Doe/Bearisto/Gallant Home (8 Bay Rd)

Doe/Hersom/Atherton Home on Bay Rd by Falls Brook

Mills (Brick & Stone) incl. Stone Mill Sheds, etc. See Industrial Inventory

Durgin/McDougall Home corner Bay Rd & Ham St (before 1871)

Two Houses at 11 Bay Rd (Durgin/Bergeron-before 1871)

Tuxbury/Shaw/Thompson/Davis/LaBranche House (1 Bay Rd-before 1841)

Bassett/Gonet Farm on Dame Rd (before 1871)

Wm Simpson/Geo Zuk House on Ham St (before 1871)

Ham/T.Hood Home on Lamprey St (before 1871)

Ham/Smith/Brangiel Home on Lamprey St (before 1871)

Chapman/Homiak Home on No Main St (before 1871/older)

Cram/Smith/LeGault Home (11 No Main St-before 1871/older)

Durham School District No 9 near Kruzeck/s Garage

(No Main St-built 1888)

Young/Hersom/Howard Home (No Main St-before 1871)

Hayes/Stevens/Howard Home (33 No Main St-before 1861)

Newmarket Durham side Primary School/Moisan Home

(No Main St-built 1888)

HISTORICAL BUILDINGS INVENTORY: (cont'd)

Heath Home (46 No Main St-prob before 1850)
Capt Ben Smith Home (now Getchell-51 No Main-1709-1791)
Wiggin Doe Home (now Eagles-on Main St-1758-1831)
Brooks Block (now BoChaines-built 1826)
Branscomb Tavern (now Prof.Buildg-80-82 Main St)
(Built by A. Branscomb Sr. 1764-92/or A. Branscomb Jr. before 1789)
Masonic Bldg. (Built by Dr. SH Greene-1873-Contains old oil frescoes)
Memorial Bandstand (built 1920-22)
Smith/Bennett/Jordan's Luch (built by 1830-brick buildg-Main St)
Willey Hotel (pre-1822)
(earlier as Rundlett Tavern; Washington House-1857; Silver's Hotel-1870)
Small Bldg behind Willey Hotel (is this an old school?)
Brick business blocks listed in Candee's Survey of Village
Community Church (built 1828)
Loiselle Home (1 Water St)
Garland/Lang Blacksmith Shops (at waterfront behind Com. Church)
Laundromat (Main St-perhaps 18th century)
Doe/Bouras Bldg. (prob 18th century, i.e. rear part of buildg)
Langley/Levesque Bldg (next to Mathes Store-Main St-perhaps 18th cent)
Brick Mathes Store (Riverworks Tavern-Main St)
C.V. Doe Tailoring Shop
(Relict of early wooden factories of early/mid 19th century)
Doe's Laundry Bldg behind Doe's Tailoring Shop
Bennett/Griffin Hardware on Tenney's Corner
(had TOWN HAY SCALES in front)
Mathes/Jones/Sobozenski/Albright (Small Stone building)
Memorial Plaque to Soldiers of Civil War on Ledge by Tenney's Corner
Tiger No 1 House (prob built c.1852)
Wentworth Cheswell's Store (Marcotte's-1746-1817)
(He was Rider for Com. of Corresp. during Revolution)
Stackpole/Donaldson House (corner So Main & Tasker Ln-before 1866)
Primary Shool/Fire Station (built 1849-50)
Small/Meserve House (So Main St-beyond Fire sTation)
St. Mary's Church (1898)
St. Mary's School (1910)
Rectory (1889)
Brady Blacksmith Shop on Kent St (now called Beech St Ext)
Kent Livery Stables on Kent St (now Filion Lumber)
Plaque in Kittredge Square
Rockingham Gas Bld on RR Station
Caswell Mansion (built 1885-9 by William Proctor's father)
Dea Paul Chapman's Home (corner So Main & Packers Fall Rd-1761)

HISTORICAL BUILDINGS INVENTORY: (cont'd)

Leavitt/Kent Home
(on So Main-built between 1888-1891; Emma Borden died here, 1927)
Woods/Killticker Home (on So Main St-before 1860)
Perkins/Meader/Dziedzik Home (So Main St-before 1860)
Cheswell/Clark/Grandmaison Home (Wadley's Way-before 1860)
Cheswell/Dearborn/Kimball Home (on Wadley's Way-before 1860)
Brackett/Bennett/Loiselle Home (Wadley Way-before 1769)
Bennett/Gowen/Home (Wadley's Way-before 1769)
Bennett Homestead
(present house built after fire destroyed older home-1805)
Wiggin/Walker Hom(on Wadley's Way-before 1860-now Nelson-prob older)
Creighton/Walker Hom(on Wadley's Way-fefore 1860-perhaps before 1830)
Smart/Chapman/Mathes (Wadley's Way-before 1860)
Chapman/F.Albert Seawall Home (Wadley's Way-before 1860)
Thomas Bennett Home (Wadley's Way-1720-1789-now Rodney Seawall)
Smart/Perley Young Home (on Wadley's Way)
Deaborn/Kelsey/Hoyt Home (Wadley's Way-before 1860)
Kenniston/Dawes Home (off Poortown Rd-before 1860)
Watson/McDaniel Home (corner of Poortown Rd-prob 18th century)
Stevens/Richardson/Greene Home (corner Lee Hook Rd-before 1860)
Kenniston/Seawall Home (Wadley's Way-before 1860)
Plains School/Stevens Home (before 1860)
Churchill/Kenniston Home
(beyond Plains School-before 1860-part of bldg older)
Fogg/Tuttle/Laroche Farm (off Wadley's Way)
Goodwin/Norton/Joy Farm (on Ash Swamp Rd-perhaps 18th century)
Goodwin/Watson/Seawall Farm (on Ash Swamp Rd-before 1850)
Four Corners School (on Ash Swamp Rd-before 1860)
Haynes/Dennett Home (Parts of house-before 1860)
Smart/Pendergast/Hamel Farm (on Ash Swamp Rd-before 1860)
Perkins/Plante
(off Ash Swamp Rd-house burned but barn standing-Helen Keller here)
Brackett/Treadwell/H.Hauschel Farm
(on Ash Swamp Rd-Benning Brackett-1745-1815)
Smart/Joy/Hoyt Farm (before 1860-Ash Swamp Rd)
Ayer/Joy/G.Hauschel Home (before 1860-prob 18th century)
Basford/Giddings/LeGault Farm (on Ash Swamp Rd-before 1860)
Doe/Perkins/Chesley Place (on Ash Swamp at Jct-small cape-18th century)
Rockingham Ballroom where dance bands of great band era played
Rockingham Jct Depot
Rev. John Moody Parsonage/Waugh (at Rock Jct-built c.1729-30)
Neal/Stinson/Hanson (Rockckingham Country Club-prob 18th century)
Mead/Brackett/Presson/Knight/Manley Farm (built c.1806 or earlier)

HISTORICAL BUILDINGS INVENTORY: (cont'd)

Edwin Bennett Home (74 Exeter St-built before 1892)
Chapman/Kidder/LaPorte House (54 Exeter St-before 1860)
Robinson/Mellows/Long House (Exeter St-before 1860)
Chapman/I.T.George/LaBranche House (Exeter St-prob before 1850)
B & M Town Depot
R Kent Home. (was Tasker's Cow Barn)
Mathes/Cronin/Wasiewski House (before 1860-perhaps before 1800)
Watson/Clark/Trottier House (Exeter St-before 1860)
E French/Stevens House (Exeter St-before 1860)
E French/St. Hilaire House (Exeter St-before 1860)
B French/Brisson/Albee House (Exeter St-before 1860)
Staples/Brown/Stackpole House (Exeter St-before 1860)
J Tasker/Ripley/Provost Home (Exeter St-built 1834)
D M French/Lepage House (Exeter St-before 1860)
R French/Edmond/Carroll House (Exeter St-before 1860-old center chimney)
Sanborn/Jarosz House (Exeter St-before 1860)
Day/Priest House (Exeter St-c1832)
V Torr/A H Place House (Exeter St-c1832)
Tasker/Donovan House (Exeter St-c1832)
Z D Creighton/Parsonage (Exeter St-c1832)
Stackpole Blacksmith Shop (Shelton Auto Body)
Large Stone Bldg
(build by B Mathes; corner of Creighton & Main & Exeter St)
Tall House by "The Creek" (on Prescott St)
Caswell/Barrett/Audette/Halloran House (2 Creighton St-before 1850)
Carmichael House (Creighton St-before 1850)
Beaudoin/Deauteuille House (7 Creighton St-before 1850)
Michaud House (Creighton St-before 1850)
A Charest House (Creighton St-before 1850)
Young/Moreau/Ernest House
(2 Creighton St-used to have Central Chimney-18th century)
Jennie Young House (Colonial Drive-prob 18th century)
Chapman/Pindar/Laplume/McCord/Kremples
(on Pork Hill-perhaps 18th century)
Harvey/Zocchi/Metcalf House (on Prescott at Creek-prob before 1800)
LaBranche House (corner of Prescott & Shorts Sts)
Vachon House (on Prescott St)
Pindar/Cinfo House (on Prescott St)
Pinkham/Hardy/Ernest House (on Mt Pleasant St)
Mathes/Cain/Murphy House (4 Mt Pleasant St-Ell is old)
Wightman/Kenney/Boisvert House (off Prescott St)
Bennett/Hersom/Ayers House (on Mt Pleasant St)
Joseph Towle House (13 Spring St)
Gordon/McFarlane House (Spring St-before 1850)

HISTORICAL BUILDINGS INVENTORY: (cont'd)

Wentworth/Jablonski House (46 Spring St-before 1850)
Weitzell House (Spring St)
Bergeron House (5 Spring St)
Jos Rousseau House (7 Spring St)
Spring Pump School (on Spring St-now woodworking shop-before 1860)
Elm Court (three very old small houses moved from High St)
Washington/Lincoln Sts (three very old large houses moved from High St)
W B Smith House
(on Central St-1774-1853-later Jakubowicz-perhaps bfr 1800)
Polish Club (on Central-was Amer Expr Stable)
Baillargeon House (on Chapel St)
Methodist Church (on Chapel St-now apartments)
Ledges (on Chapel St-built 1835 by D Cilley & G Dearborn)
Murray/Keniston/R Gilbert House (on Chapel St)
Walter Bryant House
(is it on Church St?/was moved to a lot on south side if street running up on Zion's Hill. Walter Bryant surveyed boundary between NH/ME 1741, etc)
Taylor/Leavitt/Jones/Beauchesne House
(Granite St-small house next to Museum)
Stone School Museum (Granite St-built 1841)
Stone Church (on Granite St-built 1834 as Universalist Meeting House)
Brick School (now Elderly Houseing on Zion's Hill-1874)
Marelli House (on Rock St-very old)
Small House next to Marelli
John Webster Library (corner of Elm & Main St-1884)
Brick Agent's House (on Elm St-way to Piscassic)
Nursery (on Elm St-was moved from High St-next to Library)
Flgg/Doeg/Garland/Philbrick House (40 Elm St-before 1850)
Shackford House (on Shackford Hill-south side of Elm St)
J Stot House & Soap Factory (at Piscassic First Falls)
Water Works Bldg (at Piscassic First Falls-before 1850)
Lafayette Hall/Elliott House (at Piscassic First Falls-before 1850)
Joseph Durell House (corner of Grant Rd-1766-1826)
Washington Haines/Jos Schanda House (at Crow & Eagle Falls)
Shaw/Bateman/Jones House (beyond Four Corners on Grant Rd)
G Norton House (on Poortown Rd-before 1860)
Gerrish/Schanda Home (on Grant Rd-Ell is older & from Gerrish ho)
Kenniston/Cilley House
(on Grant Rd-formerly Grant Rd School & moved here)
Col Richard Hilton/Burley/Pendergast/Dodds House
(on Grant Rd-opposite Hall's Mill Rd)
Edward Hilton/Chas Dearborn House (on Grant Rd-before 1860)

HISTORIC BUILDINGS INVENTORY: (cont'd)

Capt Edward Hilton House
(at Grapevine Hill on Grant Rd-prob before 1800)

E N Doe Farm
(on Grant Rd-does it contain older parts of Nicholas Doe Farm?)

Jacob Burley Farm
(on Grant Rd at corner of Bald Hill Rd-prob before 1800)

Josiah Burley Farm (on Bald Hill Rd-built 1768-now PB Mitchell)

John Wedgewood House/Freeman Sanborn/McGinnis
(John W 1733-1828-Bald Hill Rd-18th century)

Josiah Bennett House
(1753-1832; formerly Ames Place & 18th Century Hall's Mill Rd-now Schneer)

Shackford/Watson/Sawyer Farm Home (on Bayside; now off New Rd- 18th cent)

Mathes/Hurd/Labonte Farm Home (on Bayside, now on New Rd-prob 18th cent)

Mills (see separate inventory on Village Center)

Several old Barns have been built into homes and should be mentioned:

R Beaudet; E Lavallee; Frank LaBranche House-So Main; N Zuk on Lamprey St; Baillargeon Home at 41-43 North Main, etc.

The use of the designation "Before 1860" or "Before 1871" refers to the fact that the buildings thus designated appear on maps of that date. Often the building may be considerably older than that. Deed research into the firm age of these buildings progresses slowly. We have not specifically mentioned all of the buildings within the town that may turn out to have an interesting history when we at last are able to research their past.

Other very old buildings are already listed in the separate survey of the Village Center and have not been repeated in this townwide listing.

HISTORICAL MARKERS AND PLAQUES:

- West Side Meeting House Site, on Wadley's Way (Wadleigh's Falls Rd)
- Davis/Smith Garrison Site on Lubberland Rd near Pearson
- World War I; World War II; Korean War; Viet Nam War Memorial Plaques on Memorial Bandstand
- Civil War Memorial Plaque on Granite Boulders under Zion's Hill near Tenney's Corner
- Memorial in Kittredge Square, junction of Gerry Avenue & South Main
- Stone School Museum Sign on Main Street near Church Street
- Revolutionary War Memorial in Lobby of US Post Office on Main Street